HTC-NX1

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

HTC-NX1 is the CD player and Tape Deck section in MHC-NX1/NX3AV.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol □□ are trademarks of Dolby Laboratories Licensing Corporation.

CD Section	Model Name Using Similar Mechanism	HCD-MD555
	CD Mechanism Type	CDM53D-K1BD33
	Base Unit Name Type	BU-K1BD33
	Optical Pick-up Name	KSM-213BFN-C2NP
Tape Deck Section	Model Name Using Similar Mechanism	HCD-GRX7
	Tape Transport Mechanism Type	TCM-230AWR2

SPECIFICATIONS

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780nm) Emission duration: continuous
Laser output	Max. 44.6 μW* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength	780 – 790 nm
Frequency response	20 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
CD DIGITAL OUT (Square optical connector jack, rear panel)	
Wavelength	660 nm
Output Level	–18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	40 – 13,000 Hz (±3 dB), using Sony TYPE I cassette 40 – 14,000 Hz (±3 dB), using Sony TYPE II cassette
Dimensions (w/h/d)	Approx. 225 x 202 x 347 mm ($8^{7}/_{8}$ x 8 x $13^{3}/_{4}$ in.)
Mass	Approx. 4.2 kg (9 lb 4 oz)

Design and specifications are subject to change without notice.

MINI Hi-Fi COMPONENT SYSTEM

MICROFILM

SONY®

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

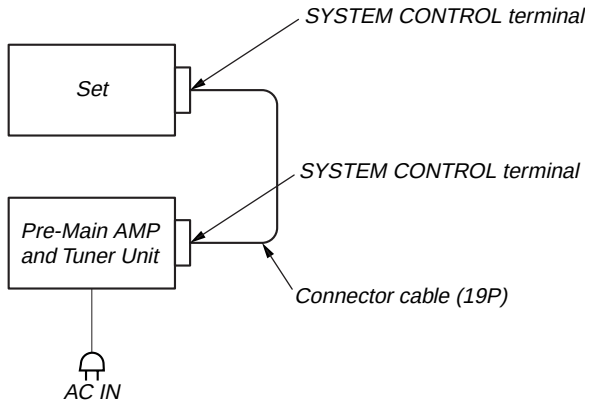
Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

POWER SUPPLY DURING SERVICING

- As this set has not own power supply, it does not operate independently. Therefore, during servicing, connect it to the Pre-Main amplifier and Tuner Unit (STR-NX1/NX3) of MHC-NX1/NX3AV.



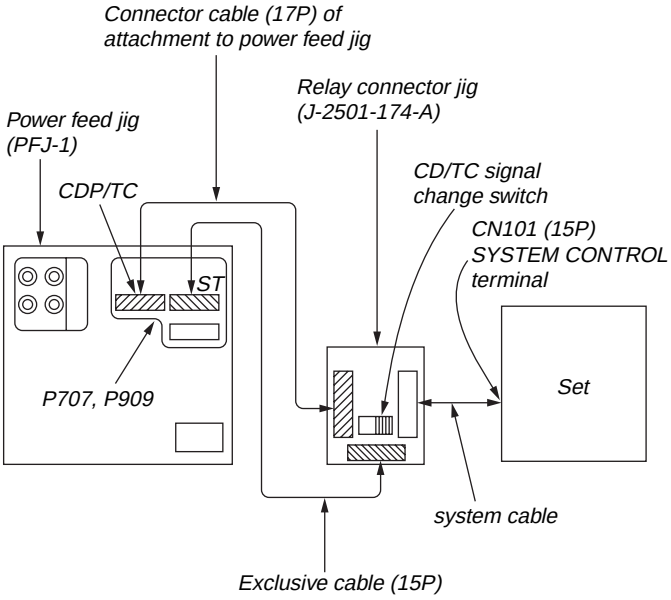
If STR-NX1/NX3 are not available, use the Power Feed Jig (PFJ-1) and Relay Connector Jig.
In this case, after turn on the POWER switch on the Power Feed Jig, supply power with the following methods.

Procedure:

1. Press three buttons of □ (DECK B), ⏏ (DISC 1), and □ (CD) simultaneously.
2. The ▷ (CD) and ▯▯ (CD) LEDs blink, and then pressing ▷ (CD), ▷ / ◁ (DECK A), or ▷ / ◁ (DECK B) button can make each play possible.
3. Also, the other functions are enabled by pressing two buttons simultaneously.
   A combination of respective functions and buttons is as follows.

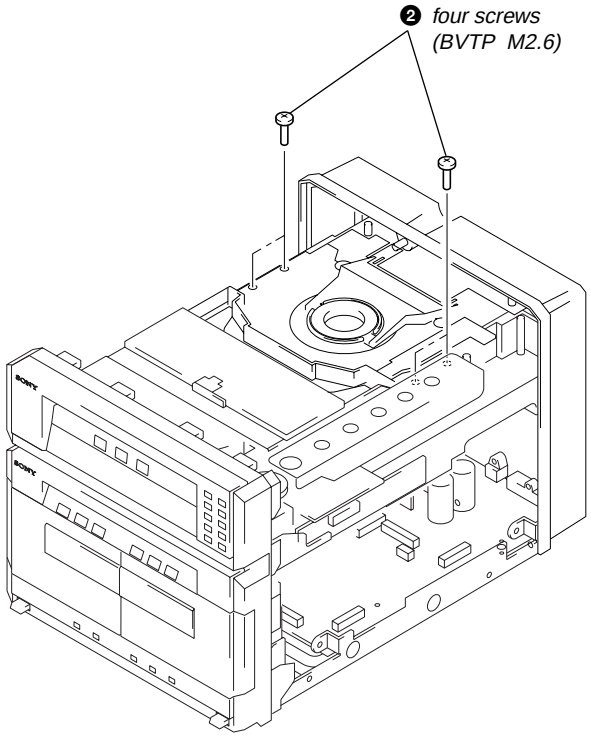
function	button
CD AMS –	□ (DECK A), ▯▯ (CD)
AMS +	□ (DECK A), □ (CD)
FR	□ (DECK B), ▯▯ (CD)
FF	□ (DECK B), □ (CD)
Deck-A REW/AMS –	□ (CD), ◁ (DECK A)
FF/AMS +	□ (CD), ▷ (DECK A)
Deck-B REW/AMS –	□ (CD), ◁ (DECK B)
FF/AMS +	□ (CD), ▷ (DECK B)

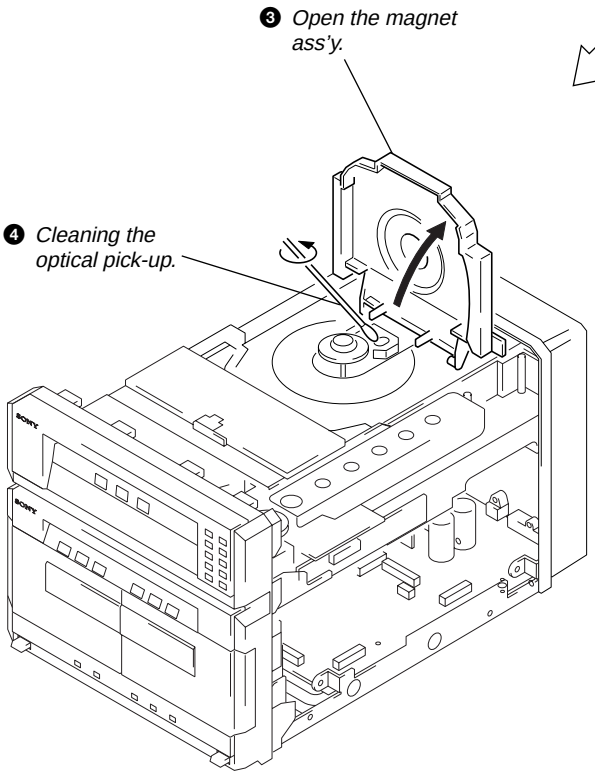
Connection:



OPTICAL PICK-UP CLEANING

❶ *Remove the case. (Refer to disassembly page 8)*

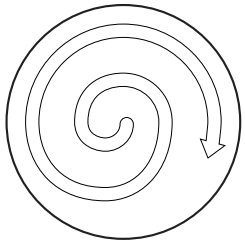




Note 1: In cleaning the lens, do not apply an excessive force. As the optical pick-up is vulnerable, application of excessive force could damage the lens holder.

Note 2: In cleaning, do not use a cleaner other than exclusive cleaning liquid (KK-91 or isopropyl alcohol).

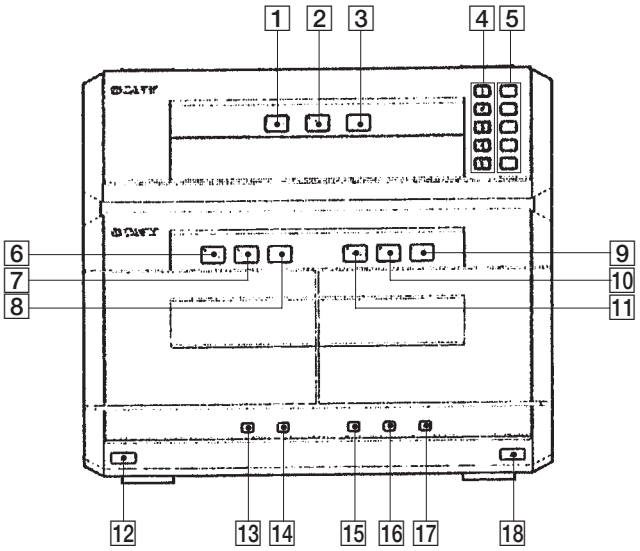
Note 3: Wipe the objective lens spirally from center toward outside. (See Figure A)



(Figure A)

SECTION 2
GENERAL

• LOCATION OF CONTROLS
– Front Panel –

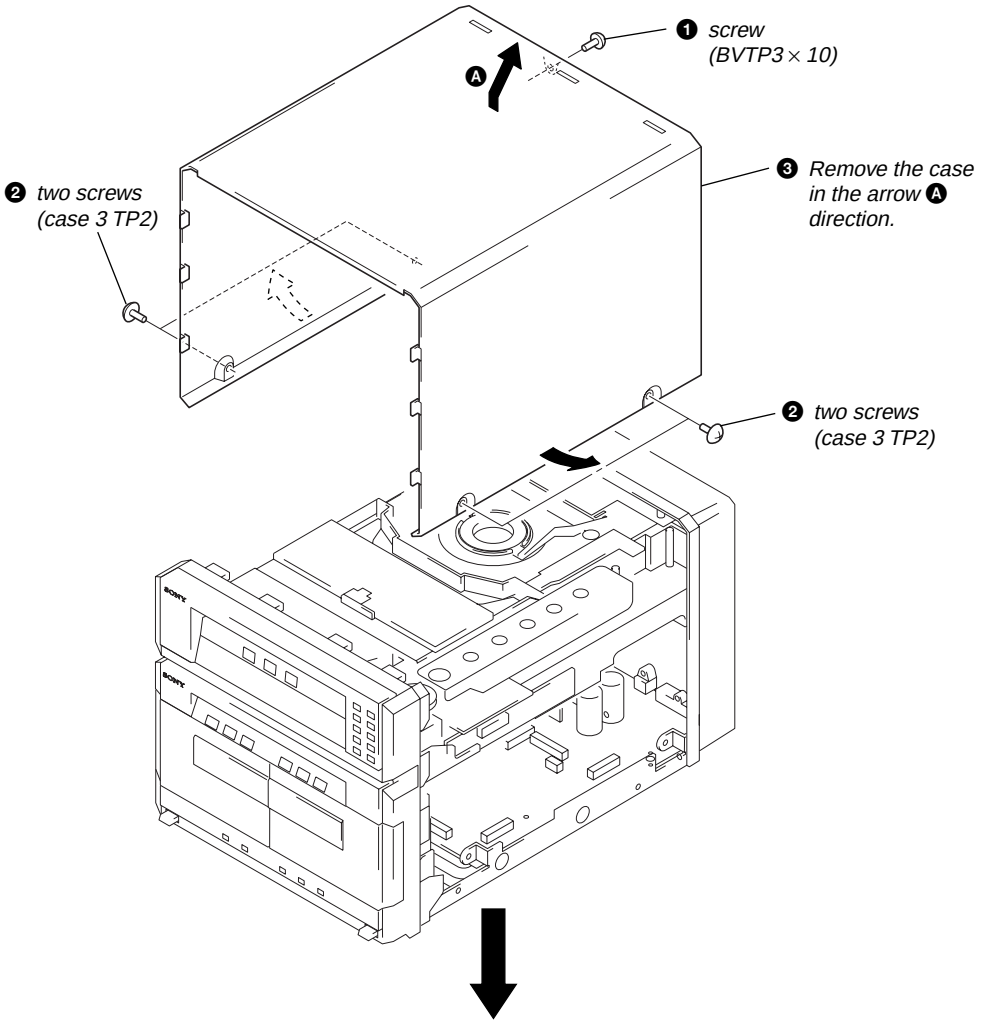


1 ▷ (CD) button and indicator
2 ▯▯ (CD) button and indicator
3 □ (CD) button
4 DISC1 to 5 buttons and indicators
5 ⏏ (DISC1 to 5) buttons and indicators
6 ◁ (DECK A) button and indicator
7 ▷ (DECK A) button and indicator
8 □ (DECK A) button
9 □ (DECK B) button
10 ▷ (DECK B) button and indicator
11 ◁ (DECK B) button and indicator
12 ⏏ (DECK A) button
13 DIRECTION button
14 DOLBY NR button
15 HI DUB button
16 CD SYNC button and indicator
17 REC PAUSE/START button and indicator
18 ⏏ (DECK B) button

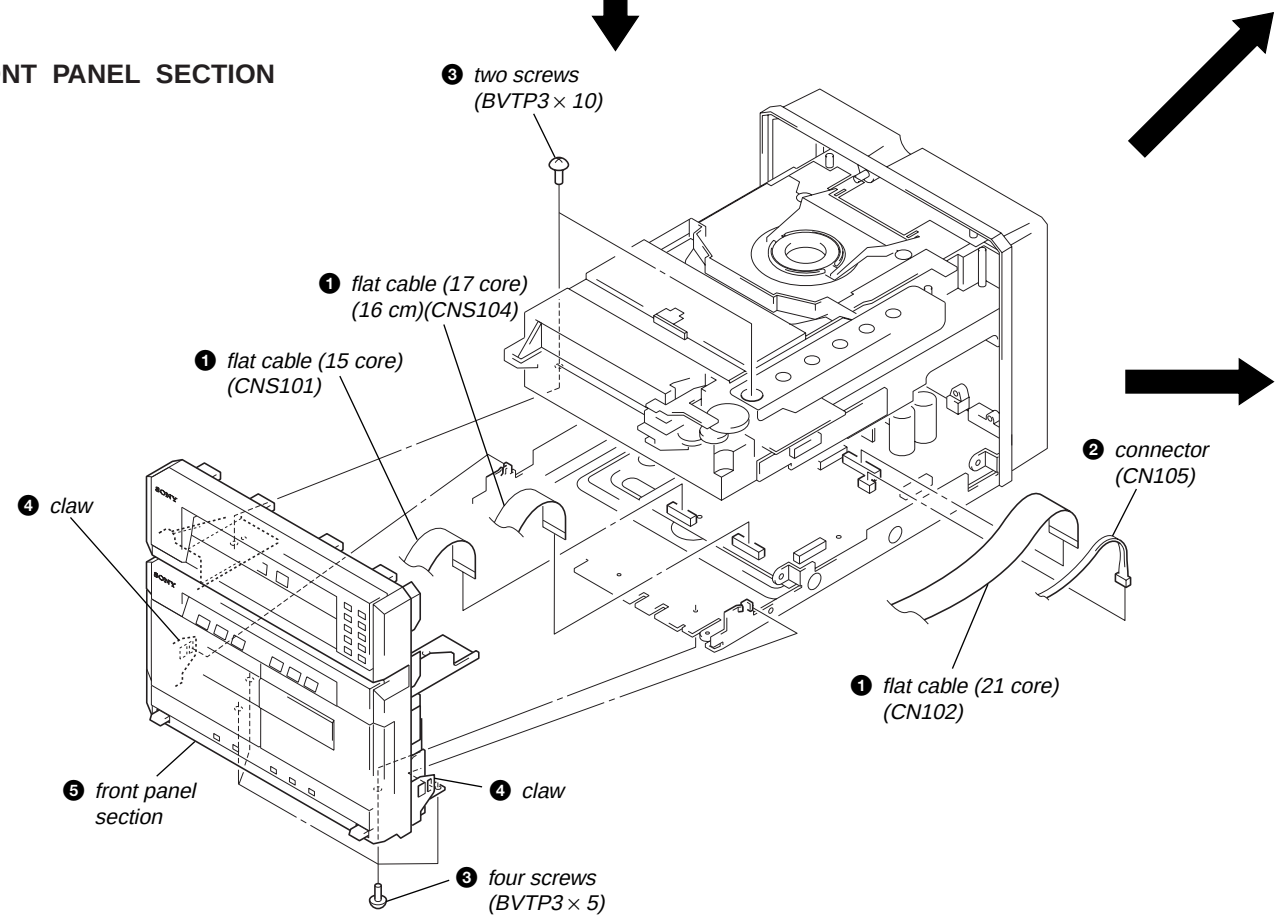
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

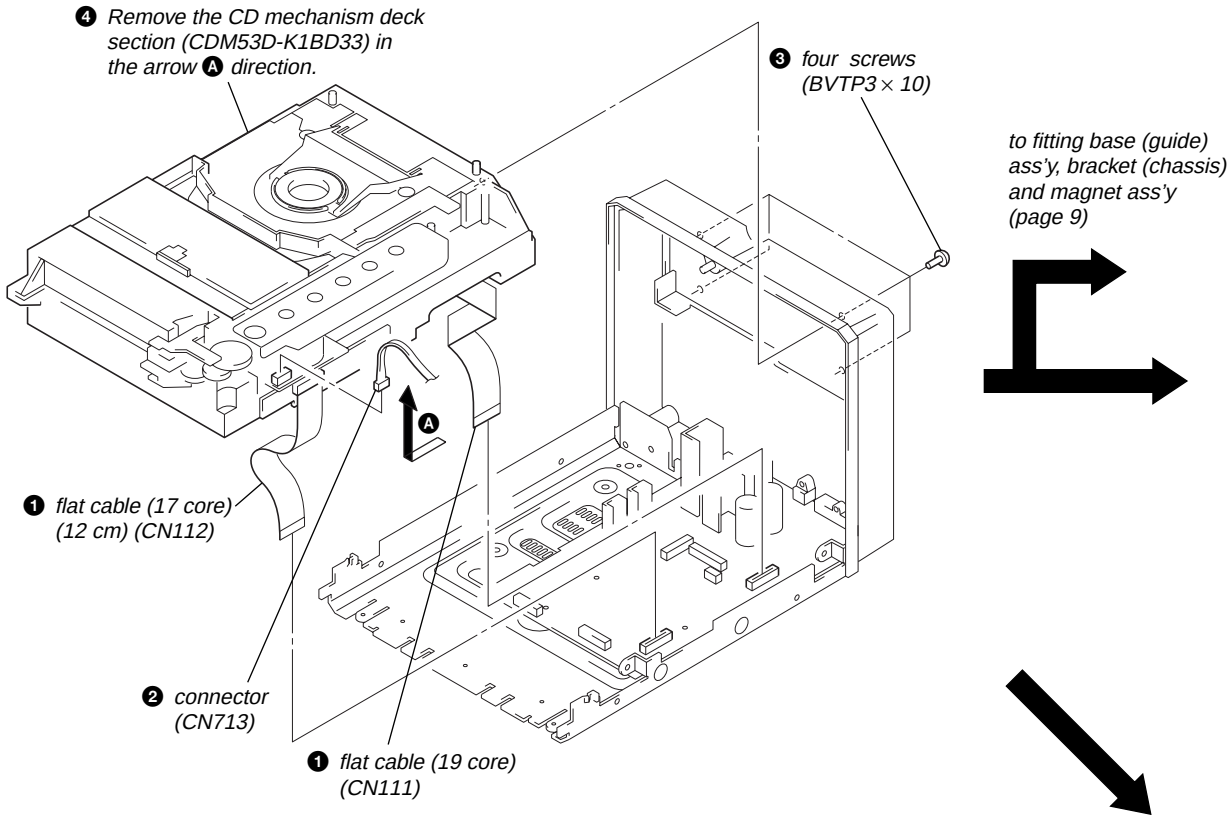
CASE



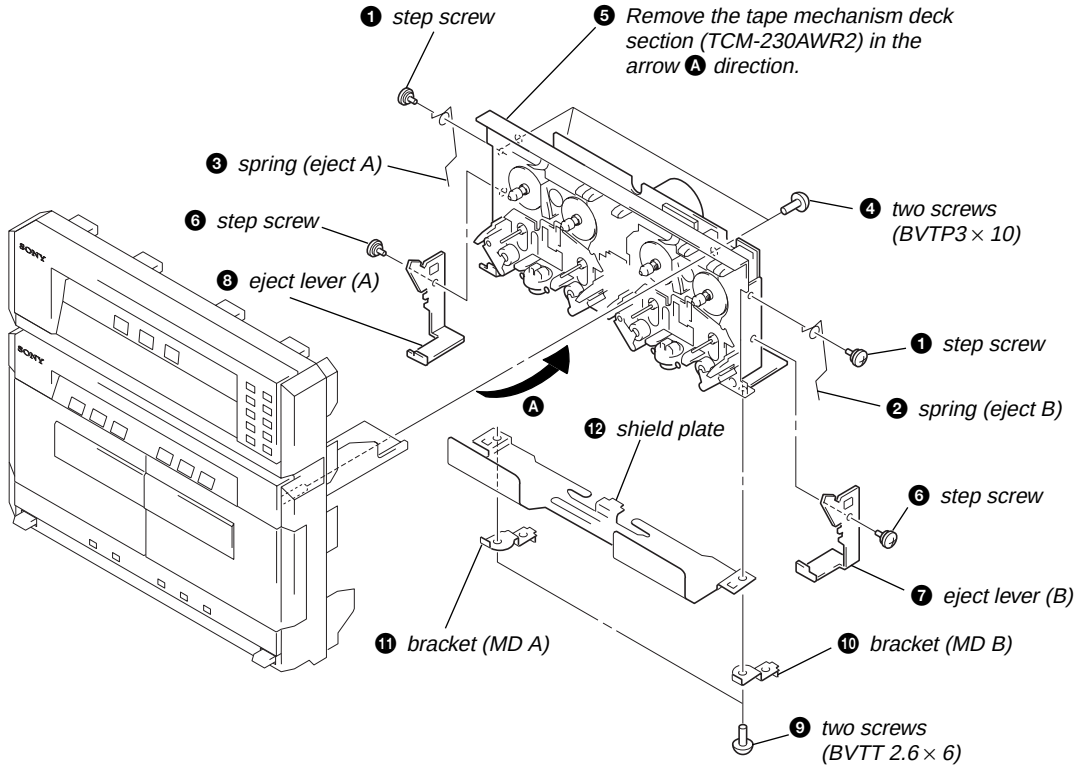
FRONT PANEL SECTION



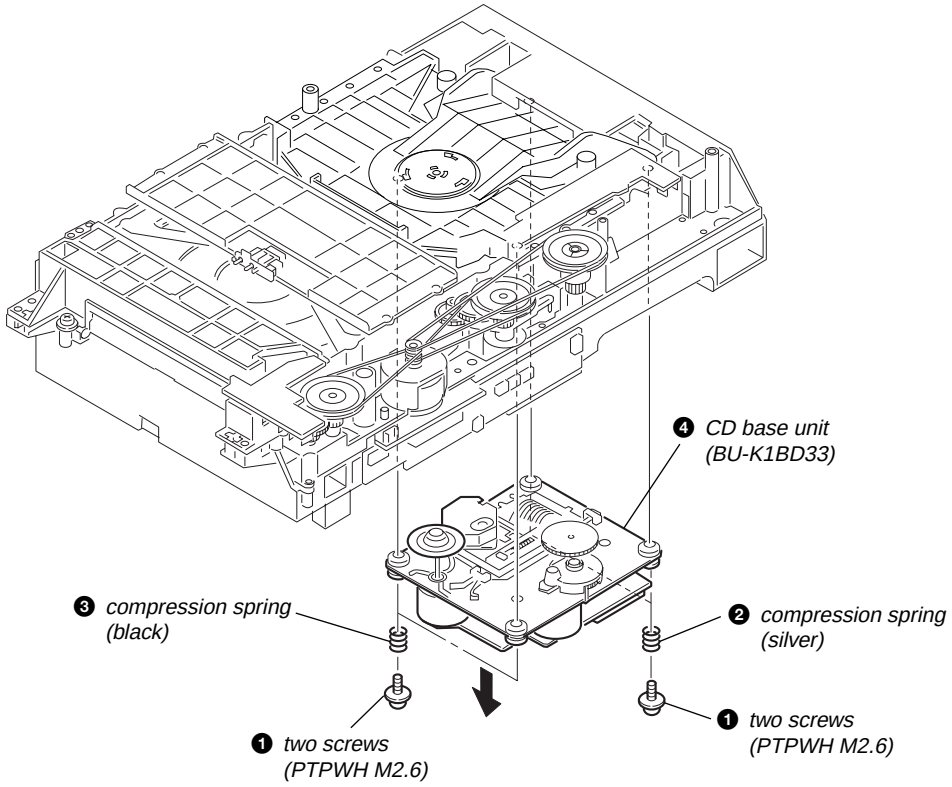
CD MECHANISM DECK SECTION (CDM53D-K1BD33)


❹ Remove the CD mechanism deck section (CDM53D-K1BD33) in the arrow Ⓐ direction.
❸ four screws (BVTP3 × 10)
to fitting base (guide) ass'y, bracket (chassis) and magnet ass'y (page 9)
❶ flat cable (17 core) (12 cm) (CN112)
❷ connector (CN713)
❶ flat cable (19 core) (CN111)

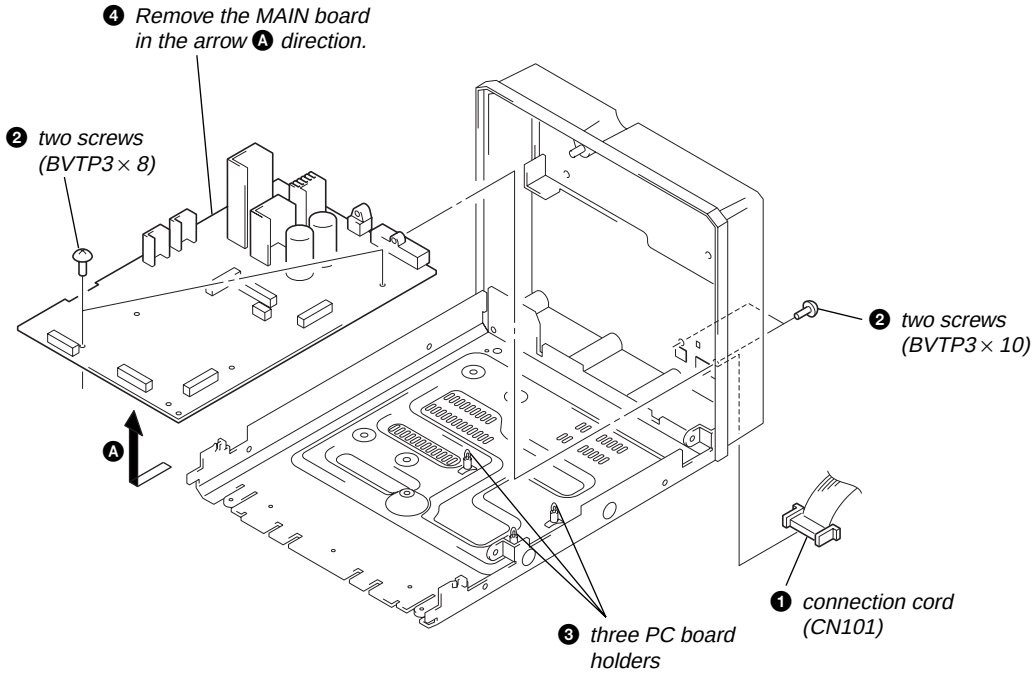
TAPE MECHANISM DECK SECTION (TCM-230AWR2)


❶ step screw
❺ Remove the tape mechanism deck section (TCM-230AWR2) in the arrow Ⓐ direction.
❸ spring (eject A)
❹ two screws (BVTP3 × 10)
❻ step screw
❽ eject lever (A)
❶ step screw
❷ spring (eject B)
⓬ shield plate
❻ step screw
❼ eject lever (B)
⓫ bracket (MD A)
❿ bracket (MD B)
❾ two screws (BVTT 2.6 × 6)

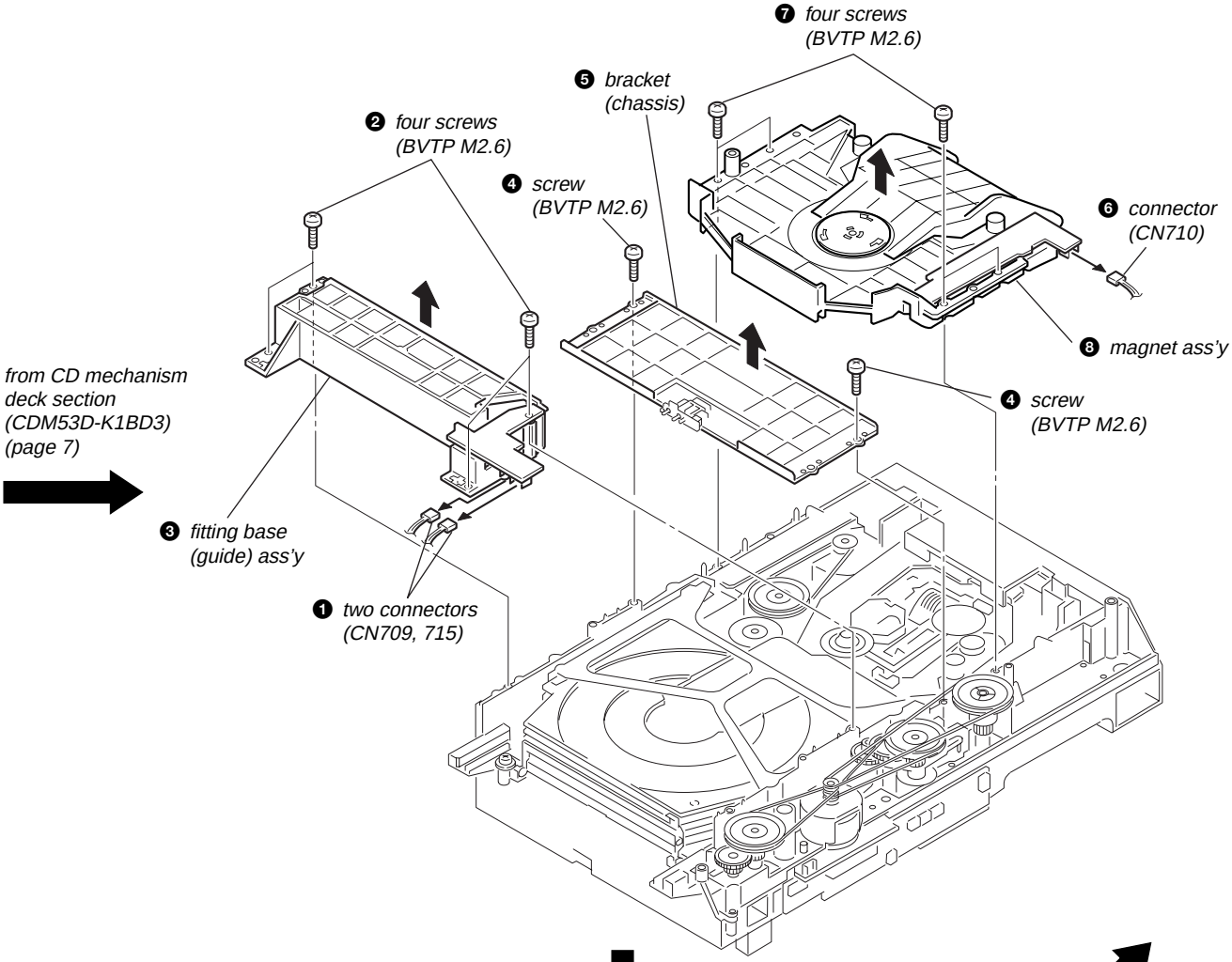
CD BASE UNIT (BU-K1BD33)



MAIN BOARD

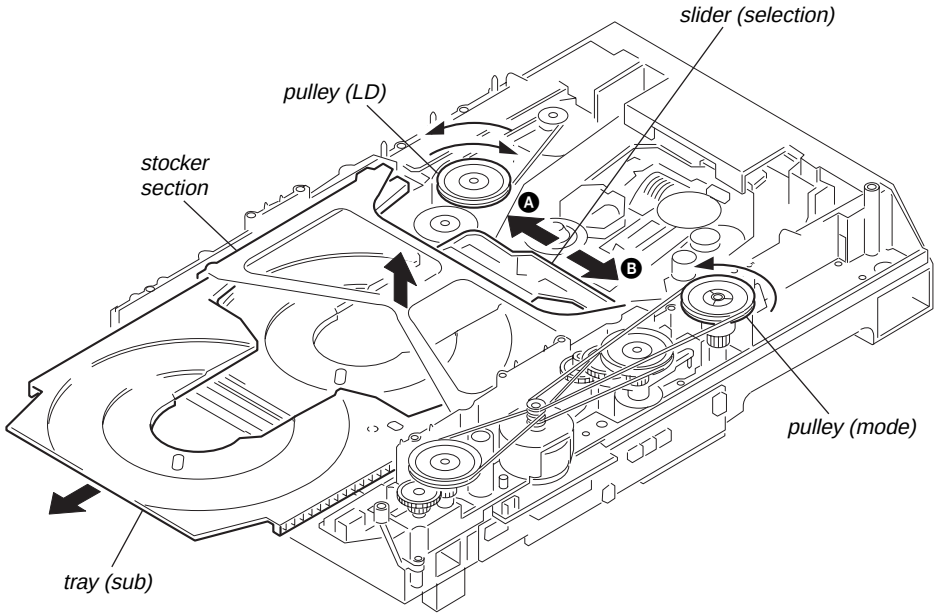


FITTING BASE (GUIDE) ASS'Y, BRACKET (CHASSIS) AND MAGNET ASS'Y



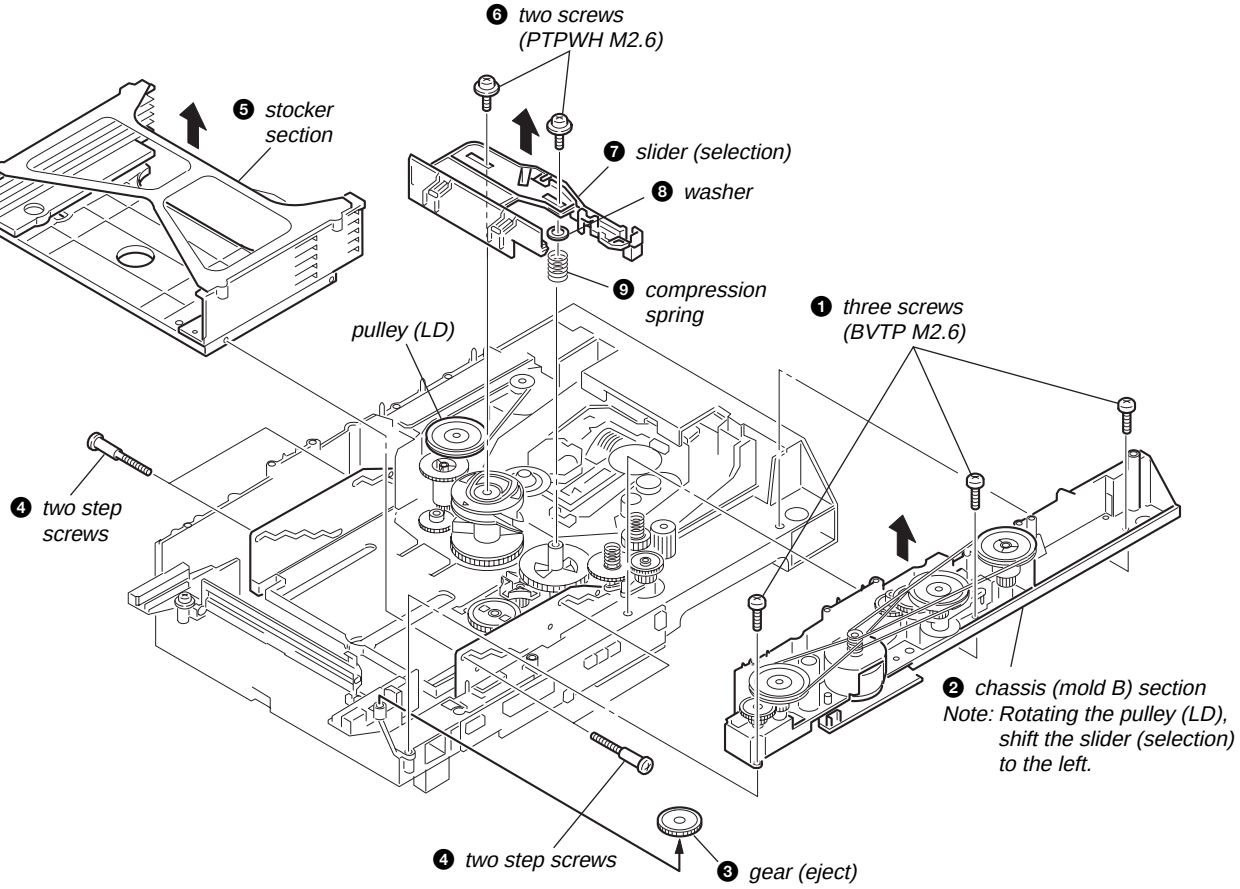
TRAY (SUB)

❶ *Rotating the pulley (LD), shift the slider (selection) in the arrow Ⓐ direction.*
❷ *Rotating the pulley (mode) in the arrow direction, adjust the tray (sub) to be removed.*
❸ *Rotating the pulley (LD), shift the slider (selection) in the arrow Ⓑ direction.*
❹ *Rotating the pulley (mode) in the arrow direction, remove the tray (sub) to be removed.*

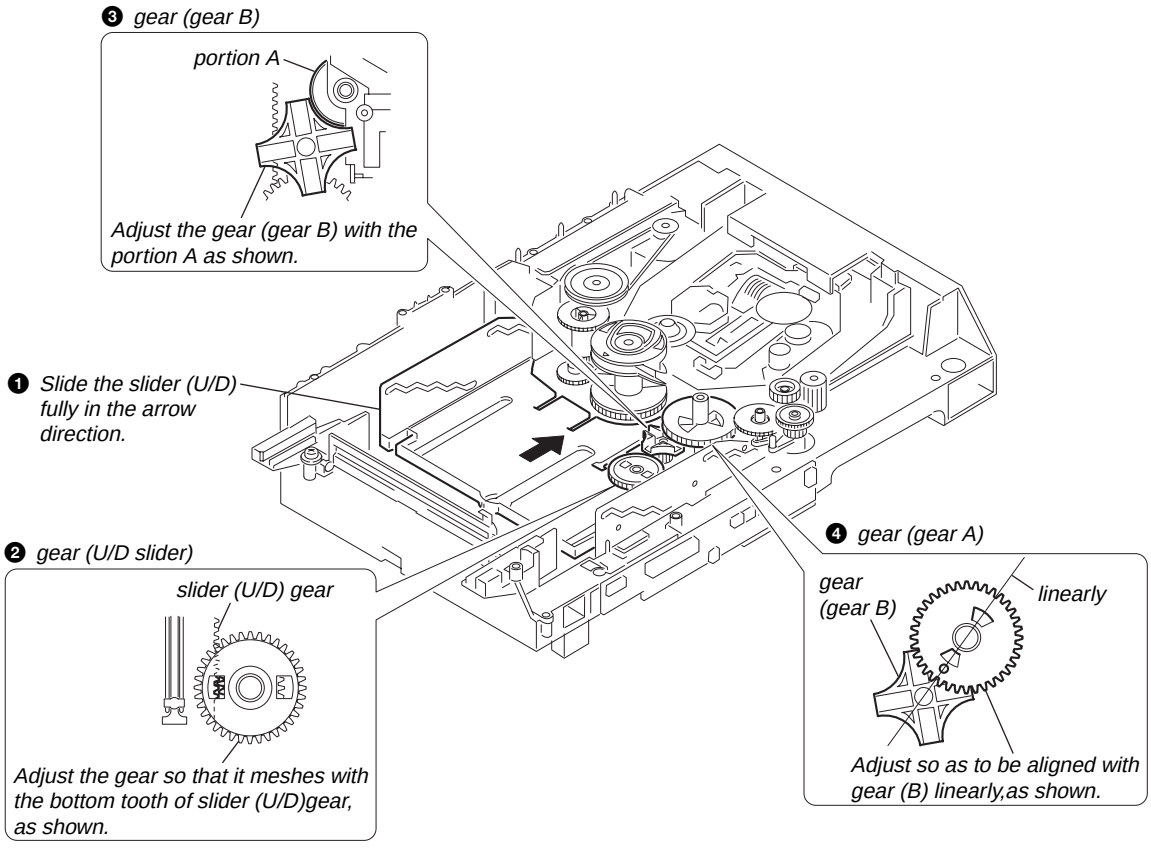


CHASSIS (MOLD B) SECTION, STOCKER SECTION AND SLIDER (SELECTION)

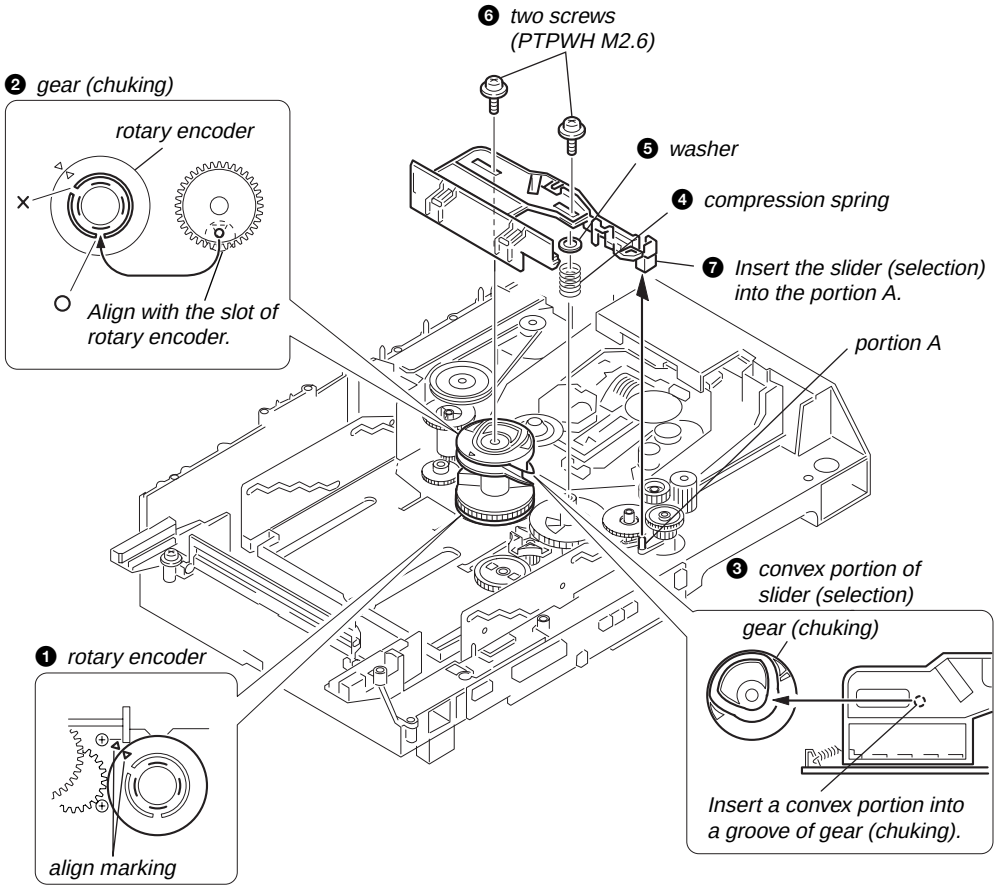
Note: In mounting the parts, refer to page 11 and 12.


❻ two screws (PTPWH M2.6)
❺ stocker section
❼ slider (selection)
❽ washer
❾ compression spring
pulley (LD)
❶ three screws (BVTP M2.6)
❹ two step screws
❷ chassis (mold B) section
Note: Rotating the pulley (LD), shift the slider (selection) to the left.
❹ two step screws
❸ gear (eject)

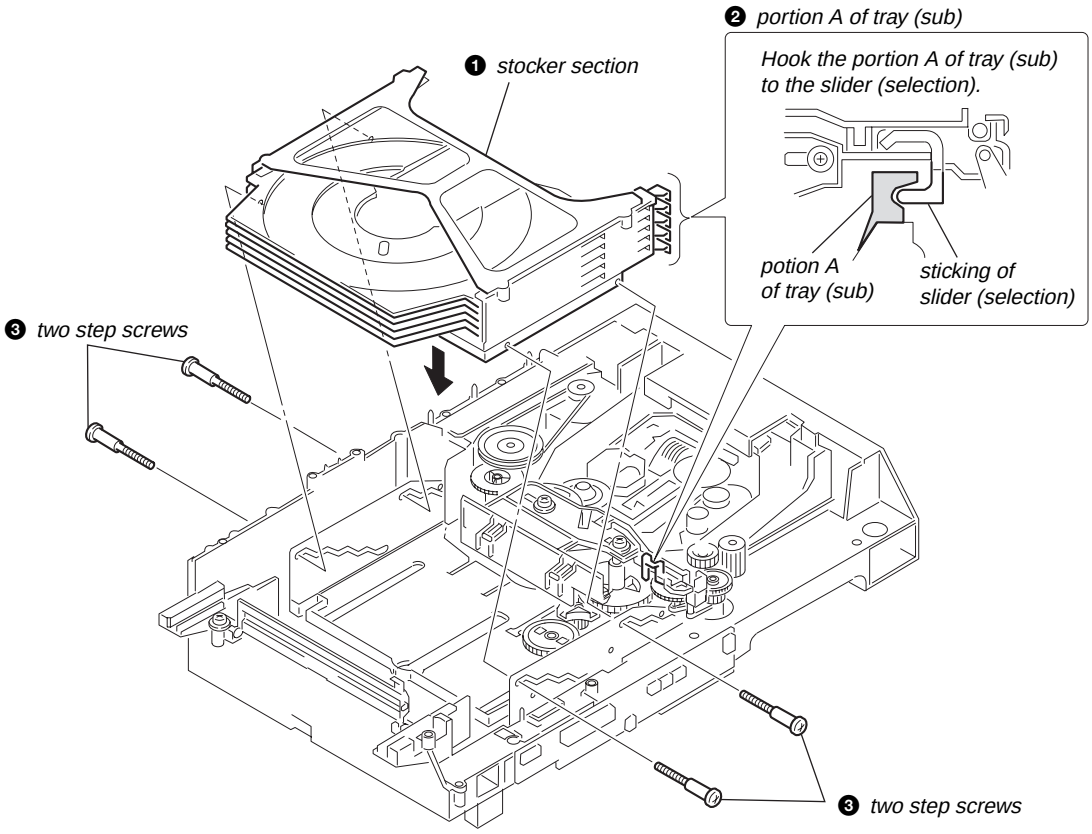
GEARS INSTALLATION


❸ gear (gear B)
portion A
Adjust the gear (gear B) with the portion A as shown.
❶ Slide the slider (U/D) fully in the arrow direction.
❷ gear (U/D slider)
slider (U/D) gear
Adjust the gear so that it meshes with the bottom tooth of slider (U/D)gear, as shown.
❹ gear (gear A)
gear (gear B)
linearly
Adjust so as to be aligned with gear (B) linearly,as shown.

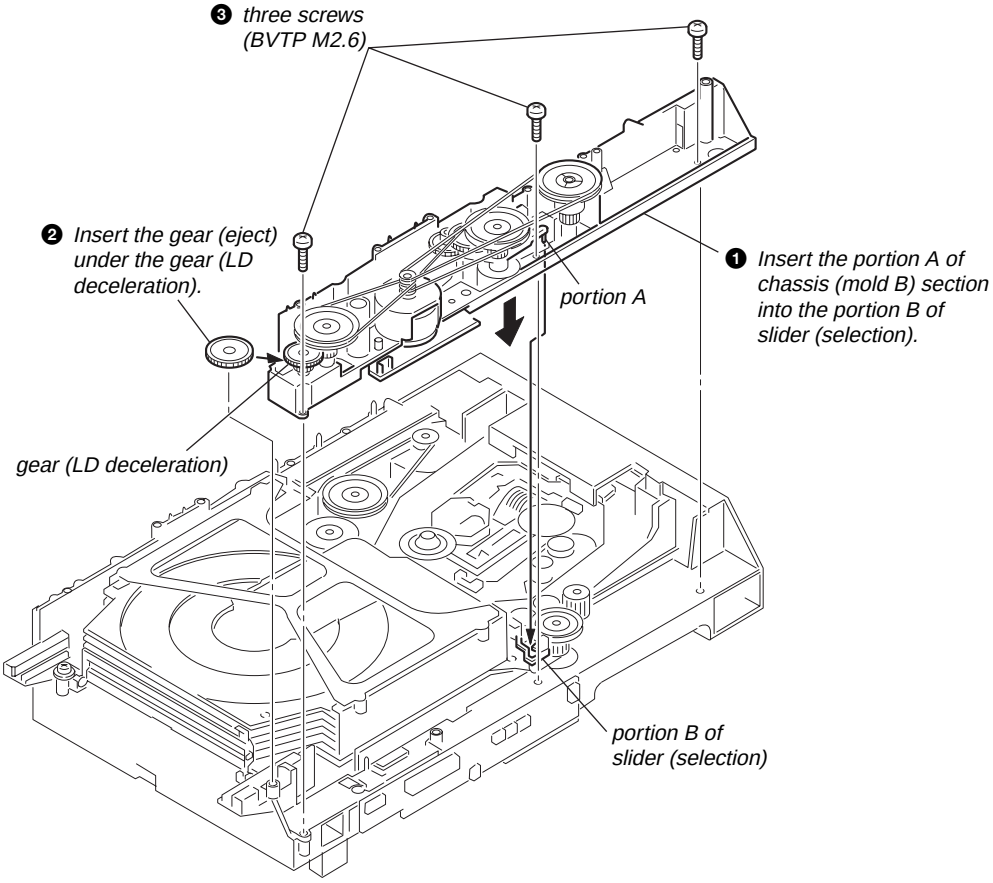
SLIDER (SELECTION) INSTALLATION



STOCKER SECTION INSTALLATION



CHASSIS (MOLD B) SECTION INSTALLATION



SECTION 4
TEST MODE

[LED All Lit, Key Check Mode]

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Press three buttons of □ (DECK B), ⏏ (DISC 1), and DISC 5 simultaneously.
3. LEDs are all turned on.
   Press the ▷ (CD) button, and the key check mode is activated.
   LEDs are all OFF.
4. When a button is pressed, the LED near the pressed button blinks or lights up.
   Also, if all buttons are pressed, all LEDs light up (not blink).
5. To release from this mode, press three buttons in the same manner as step 2, or remove the power cord.

[CD Delivery Mode]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Press the □ (DECK B) and DISC 1 buttons simultaneously.
3. A message "LOCK" is displayed on the liquid crystal display of the STR-NX1/NX3, and the CD delivery mode is set.

[Tape Deck Test Mode]
(In case of connected to the STR-NX1/NX3)

- If connected to the STR-NX1/NX3, the mode also acts as the STR-NX1/NX3 amplifer test mode.

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Press three buttons of □ (DECK B), ⏏ (DISC 1), and ▯▯ (CD) simultaneously.
3. On liquid crystal display of the STR-NX1/NX3, the disc calendar blinks, and "ALC OFF" is displayed, then the function which was set before the test mode became active is displayed.
4. The automatic level control of the tape deck is in OFF status, but while the □ (CD) and REC PAUSE/START buttons are pressed during recording, automatic level control goes in ON status.

[Tape Deck Test Mode]
(In case of connected to the power feed jig)

Procedure:

1. Turn on the Power switch on the power feed jig.
2. Press three buttons of □ (DECK B), ⏏ (DISC 1), and □ (CD) simultaneously.
3. The ▷ (CD) and ▯▯ (CD) LEDs blink, and then pressing ▷ (CD), ▷ / ◁ (DECK A), or ▷ / ◁ (DECK B) button can make each play possible.
4. Also, the other functions are enabled by pressing two buttons simultaneously.
   A combination of respective functions and buttons is as follows.

function	button
CD AMS –	□ (DECK A), ▯▯ (CD)
AMS +	□ (DECK A), □ (CD)
FR	□ (DECK B), ▯▯ (CD)
FF	□ (DECK B), □ (CD)
Deck-A REW/AMS –	□ (CD), ◁ (DECK A)
FF/AMS +	□ (CD), ▷ (DECK A)
Deck-B REW/AMS –	□ (CD), ◁ (DECK B)
FF/AMS +	□ (CD), ▷ (DECK B)

Note: Check that CD/TC signal change switch of relay connector jig is set to the TC position.

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   record/playback heads — pinch rollers
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.03 – 0.08 oz • inch)
REV	CQ-102RC	31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.03 – 0.08 oz • inch)
FF/REW	CQ-201B	71 to 143 g • cm (0.99 – 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 6
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION 0 dB=0.775 V

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.
8. Set to the DOLBY NR OFF.
9. Set to the test mode. (See page 13)

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

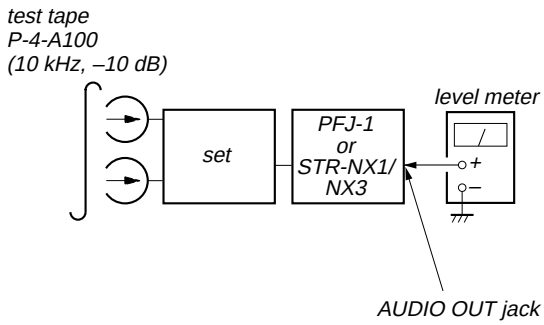
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

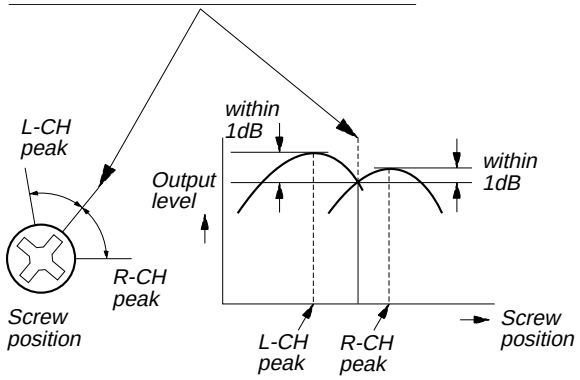
Note: Perform this adjustments for both decks

Procedure:

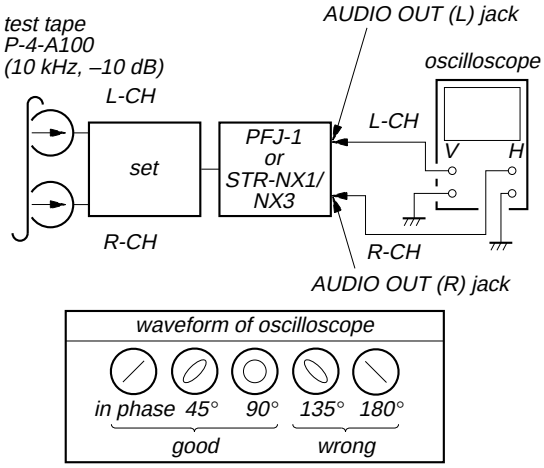
1. Mode: Playback



2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.

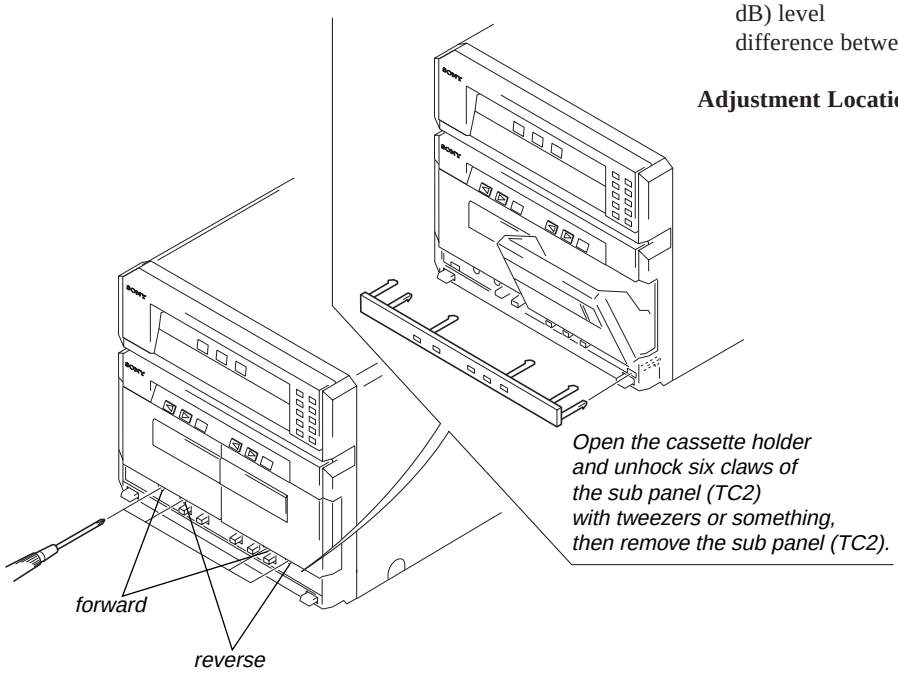


3. Mode: Playback



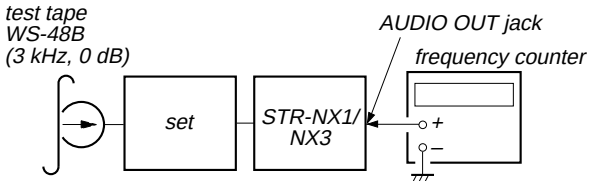
4. Repeat step 1 to 3 in playback (REV) mode.
5. After the adjustments, apply suitable locking compound to the pats adjusted.

Adjustment Location: Playback Head (Deck A).
Record/Playback/Earth Head (Deck B).


Open the cassette holder and unhock six claws of the sub panel (TC2) with tweezers or something, then remove the sub panel (TC2).
forward
reverse

Tape Speed Adjustment DECK B

• Execute only if connected to the STR-NX1/NX3
Mode: Playback

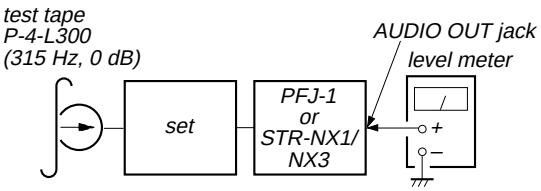


1. Insert the WS-48B into the deck B.
2. Press the ▷ (DECK B) button.
3. Press the HI-DUB button in playback mode.
   Then at HIGH speed mode.
4. Adjust RV1001 on the LEAF SW board do that frequency counter reads 6,000 ± 180 Hz.
5. Press the HI-DUB button.
   Then back to NORMAL speed mode.
6. Adjust RV1002 on the LEAF SW board so that frequency counter reads 3,000 ± 90 Hz.

Adjustment Location: LEAF SW board
Sample value of Wow and Flutter: 0.3% or less W.RMS (JIS)
(WS-48B)

Playback level Adjustment DECK A DECK B

Procedure:
Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within specified value as follows.

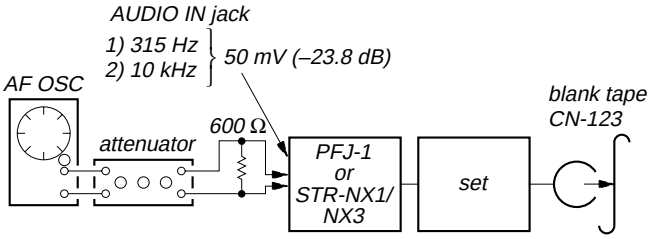
Specified Value:
AUDIO OUT jack PB level: 301.5 to 338.3 mV (–8.2 to –7.2 dB) level
difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO board

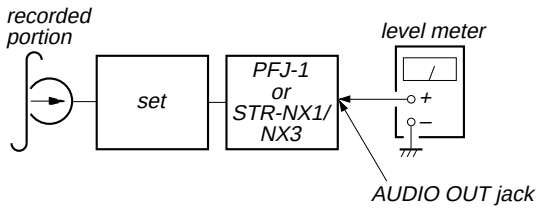
REC Bias Adjustment DECK B

Procedure:

1. Mode: Record



2. Mode: Playback



3. Confirm playback the signal recorded in step 1 become specified value as follows.
   If these values are out of specified value, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 1and 2.

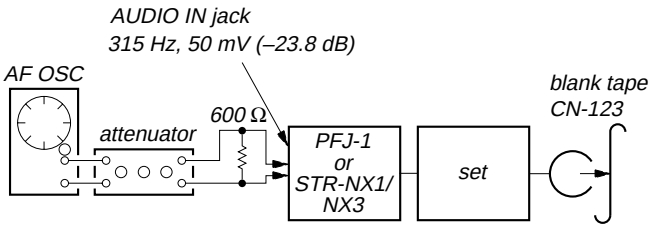
Specified value: Playback output of 315 Hz to playback output of 10 kHz: ± 0.5 dB

Adjustment Location: AUDIO board

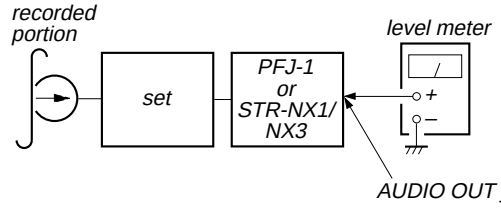
REC Level Adjustment DECK B

Procedure:

1. Mode: Record



2. Mode: Playback

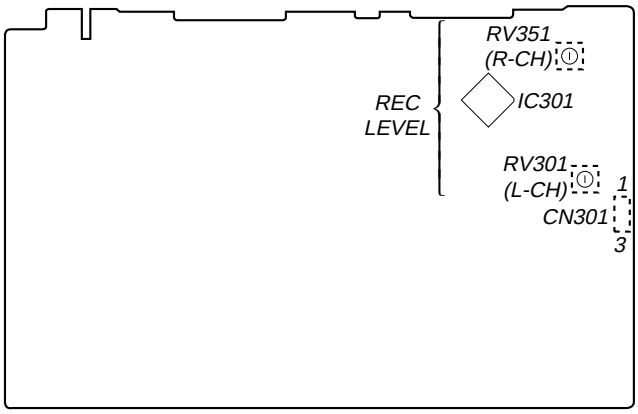


3. Confirm playback the signal recorded in step 1 become specified value as follows.
   If these values are out of specified value, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 1 and 2.

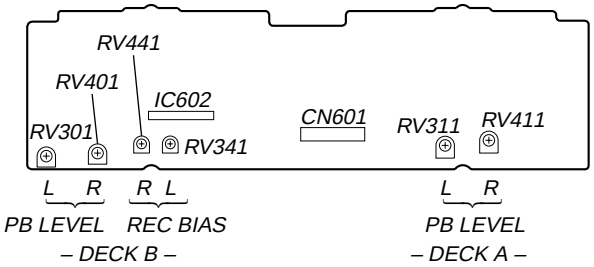
Specified value:
AUDIO OUT jack PB level: 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location: MAIN board

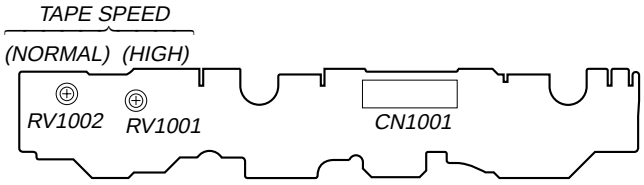
– MAIN BOARD (Conductor Side) **–**



– AUDIO BOARD (Component Side) **–**



– LEAF SW BOARD (Component Side) **–**

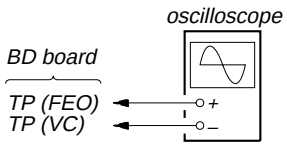


CD SECTION

Note:

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Use the following extension cables and relay connector.
   - Extension cable (19P) (Part No. J-2501-011-B)
     Relay connector (Part No. J-2501-167-A)
     (BD board CN101 to MAIN board CN111)
   - Extension cable (17P) (with connector) (Part No. J-2501-167-A)
     (CONNECTOR board CN701 to MAIN board CN301)

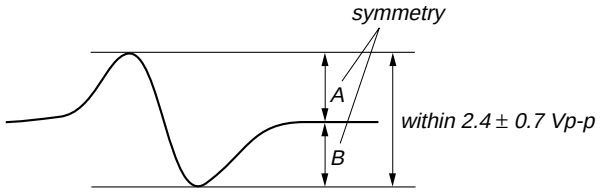
1. S-CURVE CHECK



Procedure:

1. Connect oscilloscope to TP (FEO).
2. Connect between TP (FEO) and TP (VC) by lead wire.
3. Connect between TP (AGCCON) and TP (GND) by lead wire.
4. Turn the power ON.
5. Load a disc (YEDS-18) and turn the power ON again and actuate the focus search. (Actuate the focus search when disc tray is moving in and out)
6. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2.4±0.7 Vp-p.

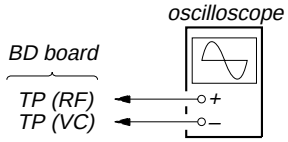
S-curve waveform



7. After check, remove the lead wire connected in step 2.

Note:
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

2. RF LEVEL CHECK

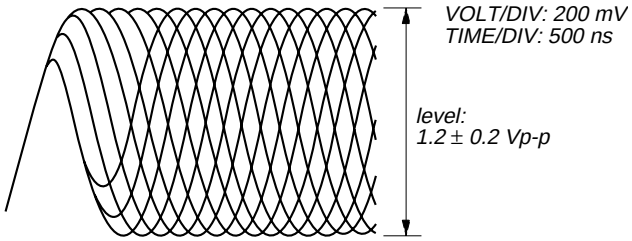


Procedure:

1. Connect oscilloscope to TP (RF).
   As TP (RF) and TP (VC) are located at the edge of board, clip them together with the board using alligator clips.
2. Turn the power ON.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

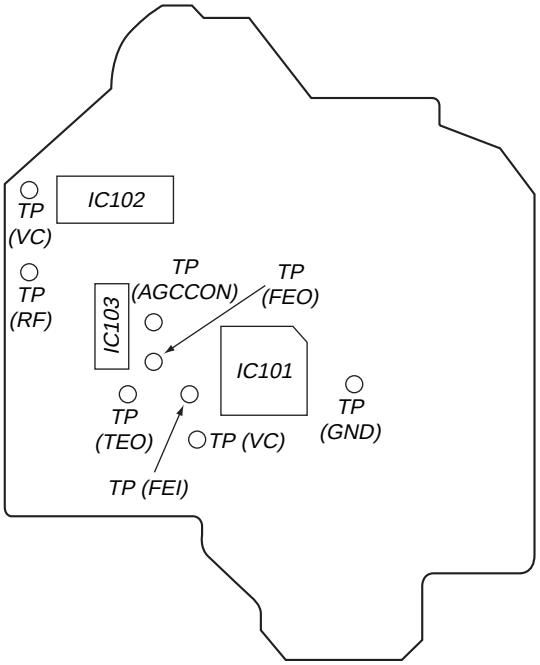
Note: Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform

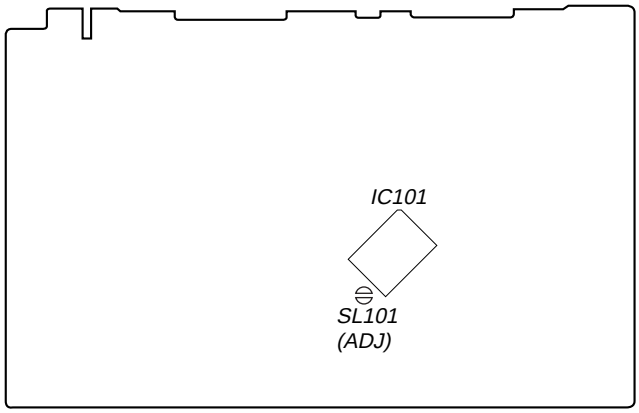


Connecting points:

– BD BOARD (Side B) **–**



– MAIN BOARD (Conductor Side) **–**



SECTION 7
DIAGRAMS

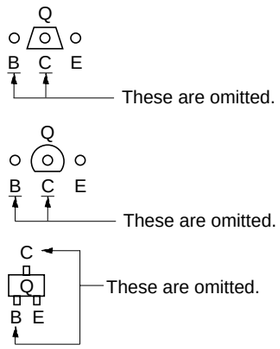
7-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS (In addition to this, the necessary note is printed in each block)

Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.

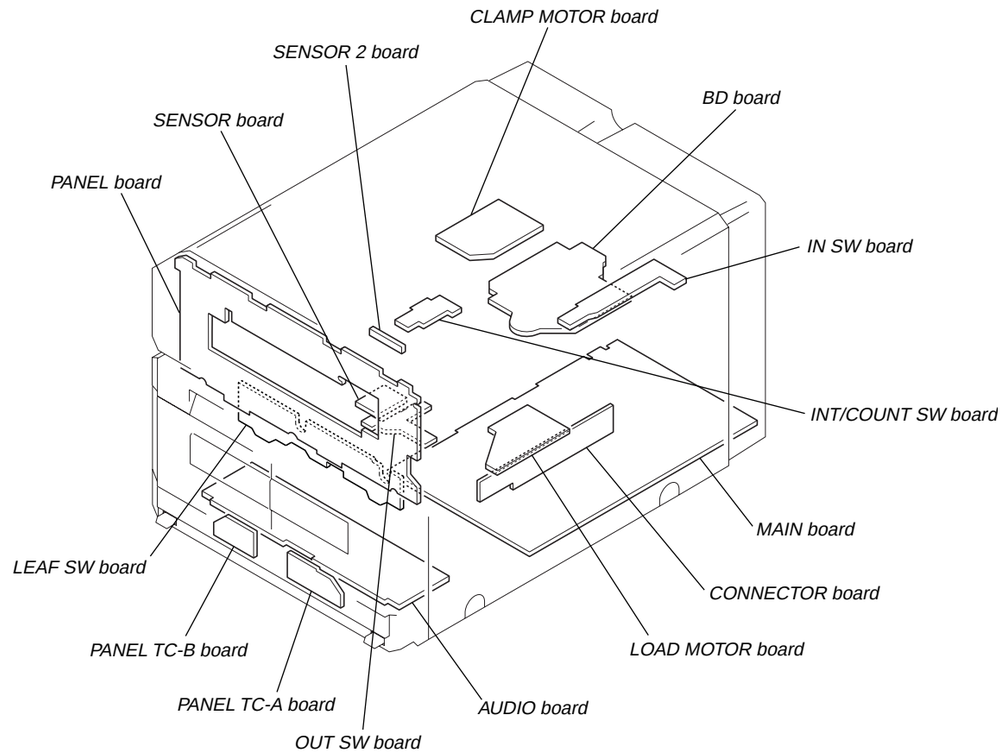


Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

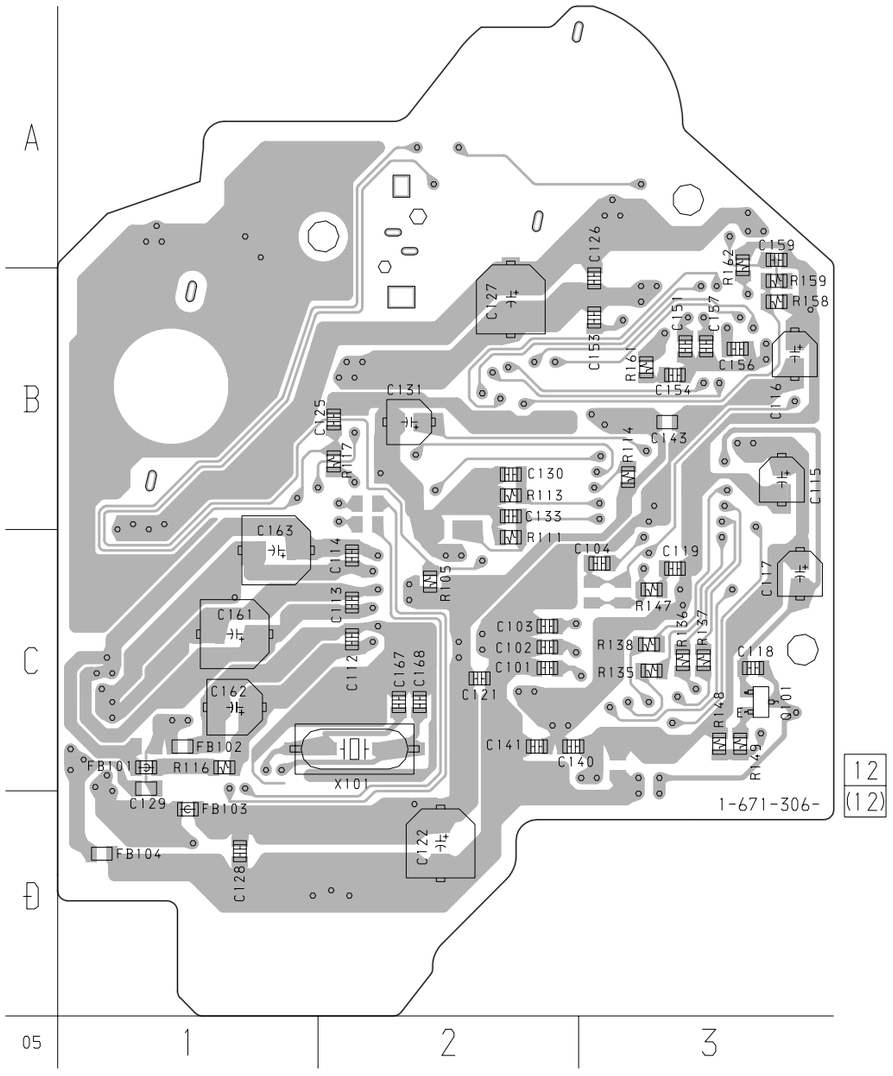
- B+ : B+ Line.
- B− : B– Line.
- : adjustment for repair.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : TAPE PLAYBACK (DECK A)
  - : TAPE PLAYBACK (DECK B)
  - : RECORD
  - : CD PLAY (ANALOG OUT)
  - : CD PLAY (DIGITAL OUT)
- Abbreviation
  - AUS : Australian model
  - CND : Canadian model
  - JE : Tourist model
  - KR : Korean model
  - MY : Malaysia model
  - SP : Singapore model
  - TH : Thai model

- **Circuit Boards Location**



7-2. PRINTED WIRING BOARD – BD Board – • See page 19 for Circuit Boards Location.

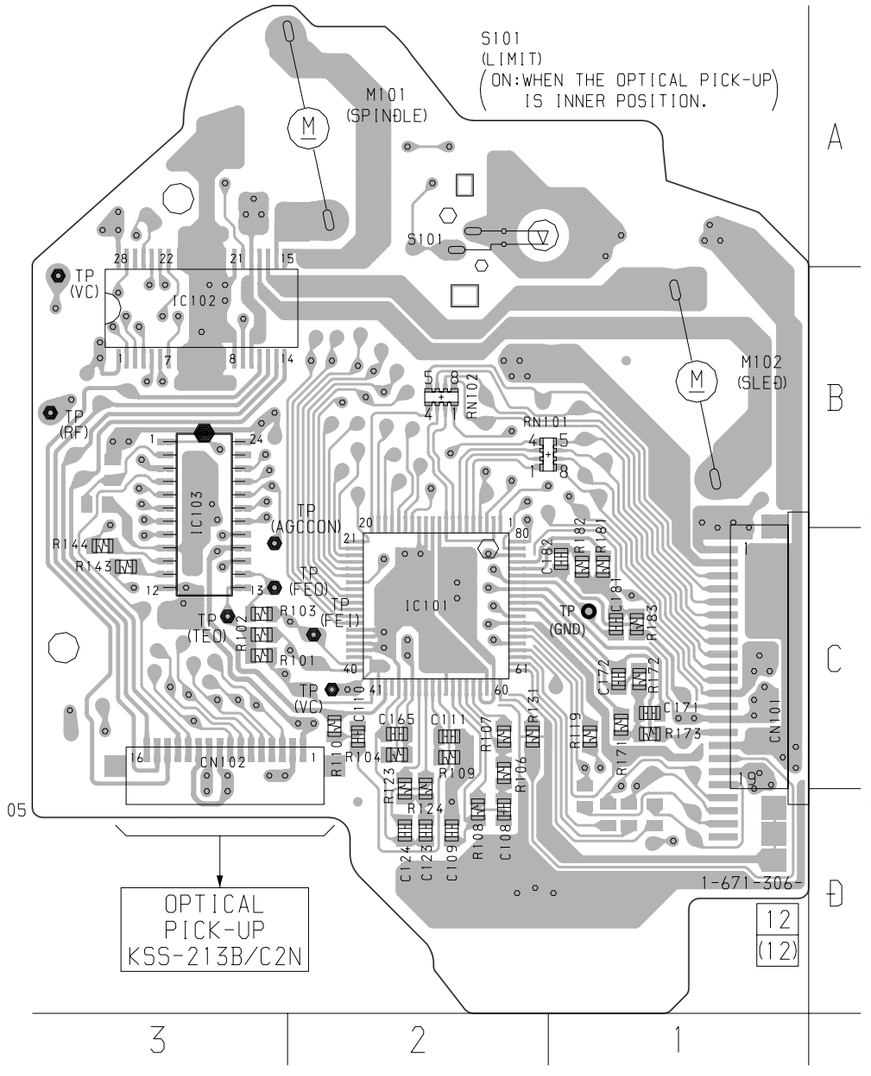
【BD BOARD】(SIDE A)



- **Semiconductor Location (Side A)**

Ref. No.	Location
Q101	C-3

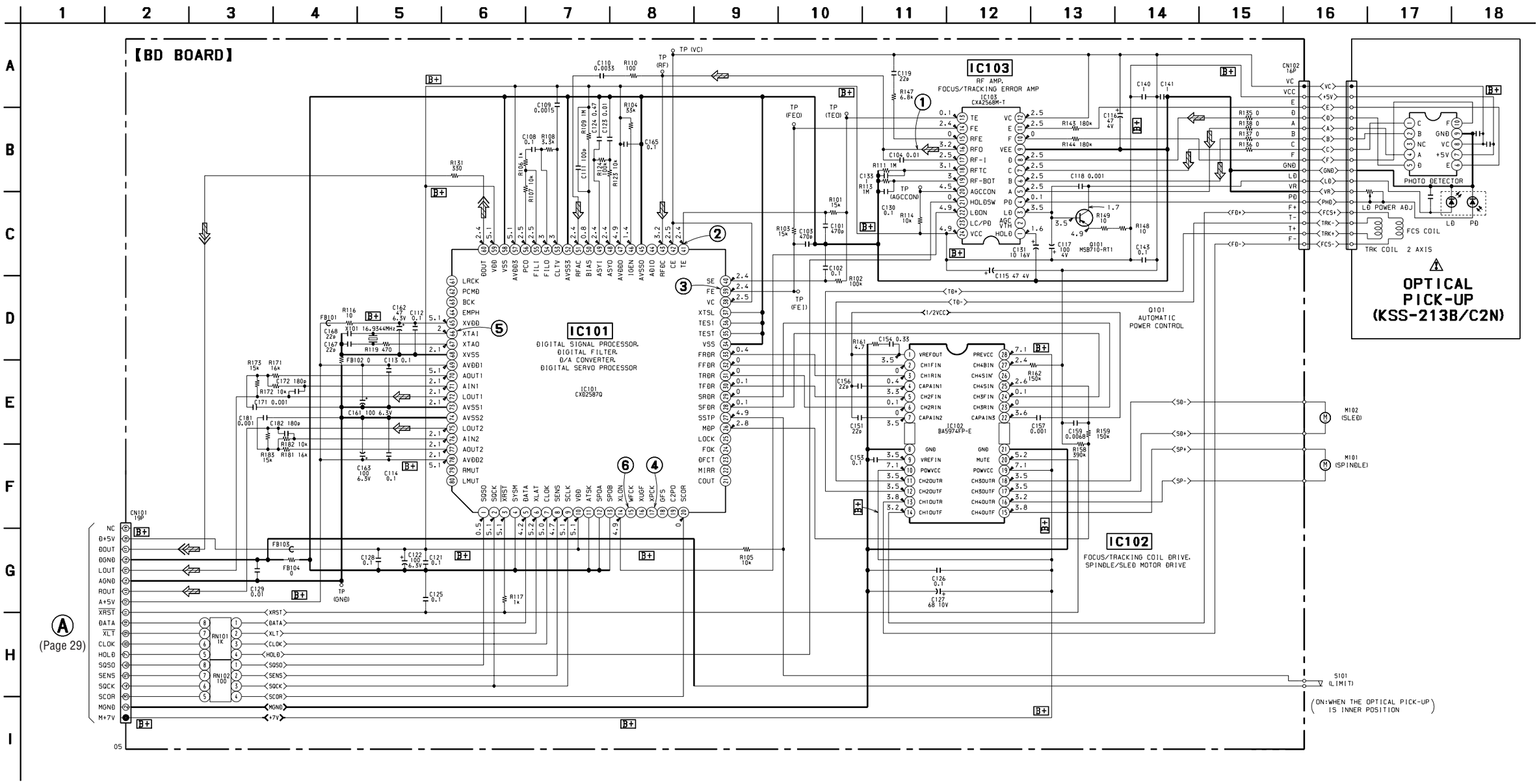
【BD BOARD】(SIDE B)



- **Semiconductor Location (Side B)**

Ref. No.	Location
IC101	C-2
IC102	B-3
IC103	B-3

7-3. SCHEMATIC DIAGRAM – BD Board – • See page 32 for Waveforms. • See page 32 for IC Block Diagrams.

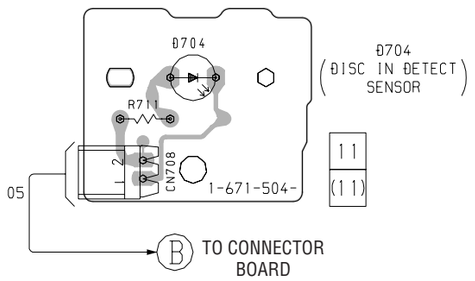


• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY

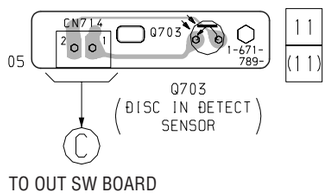
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-4. PRINTED WIRING BOARDS – CD MOTOR/SENSOR Section – • See page 19 for Circuit Boards Location.

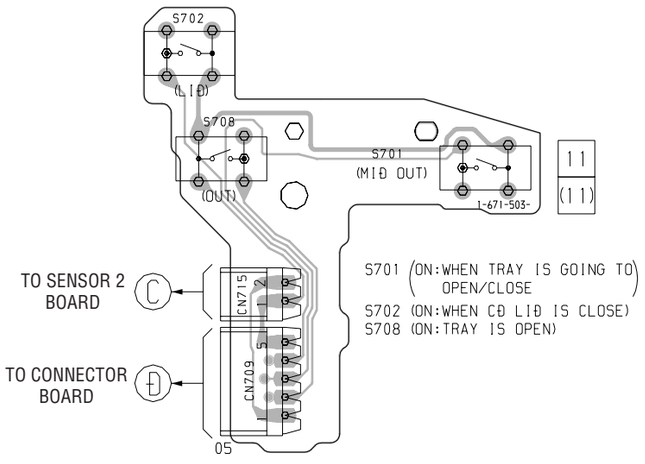
【SENSOR BOARD】



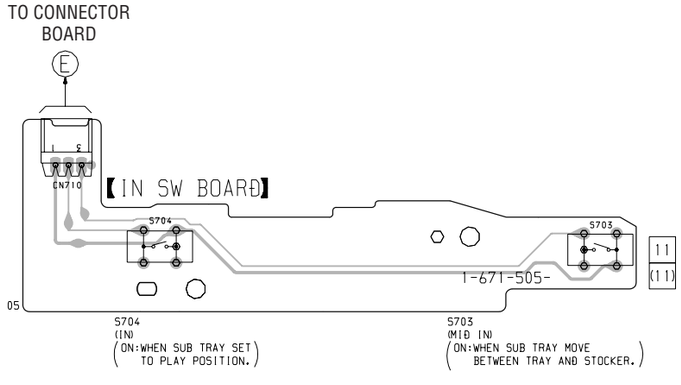
【SENSOR 2 BOARD】



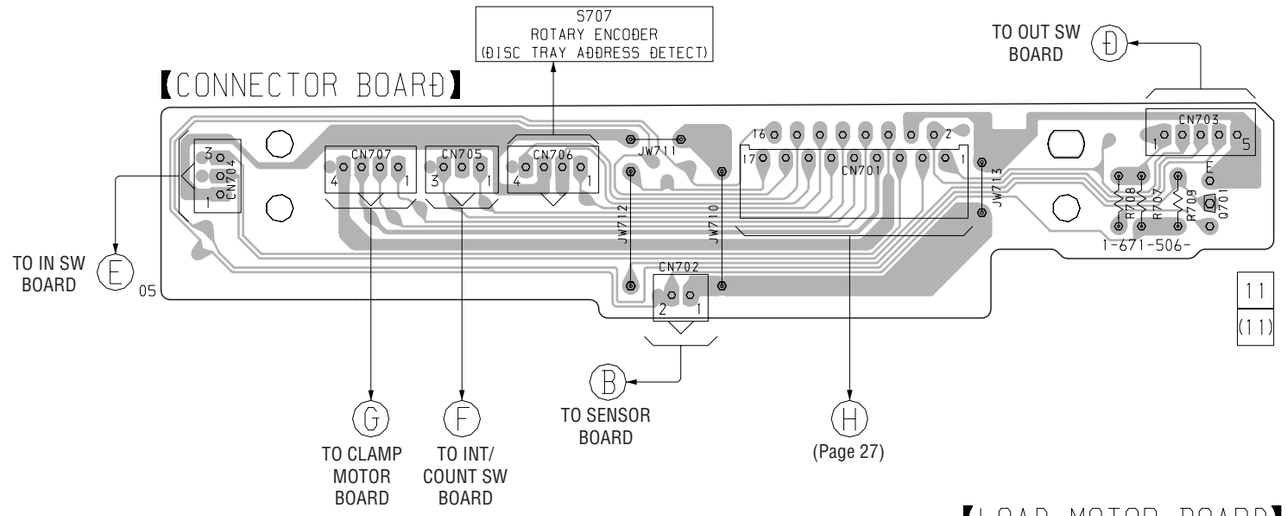
【OUT SW BOARD】



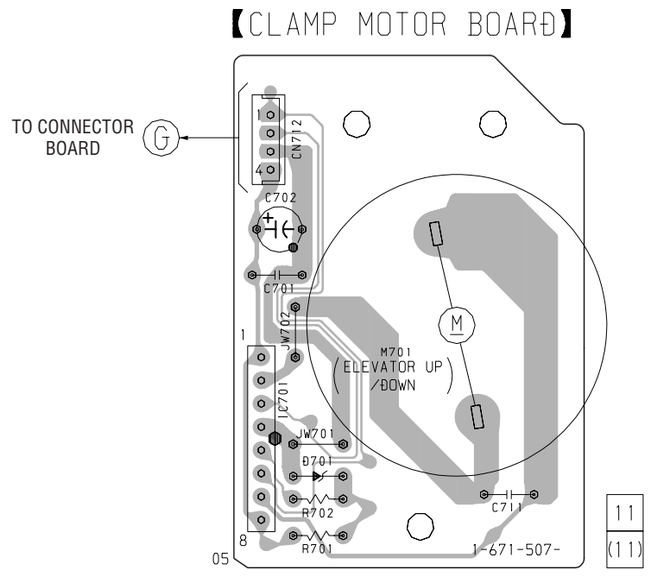
【IN SW BOARD】



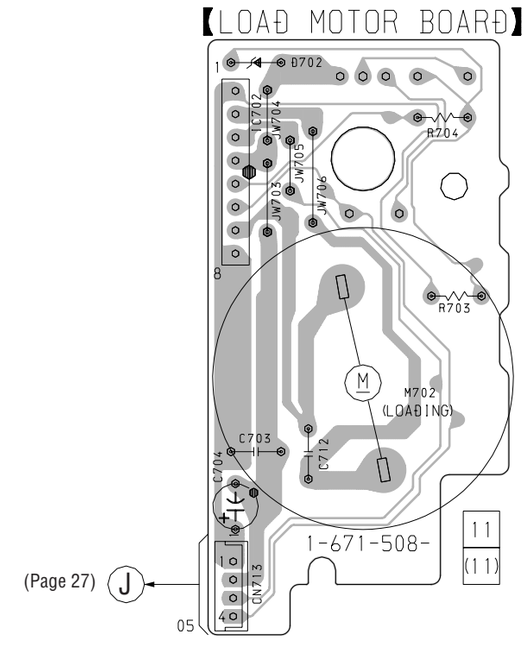
【CONNECTOR BOARD】



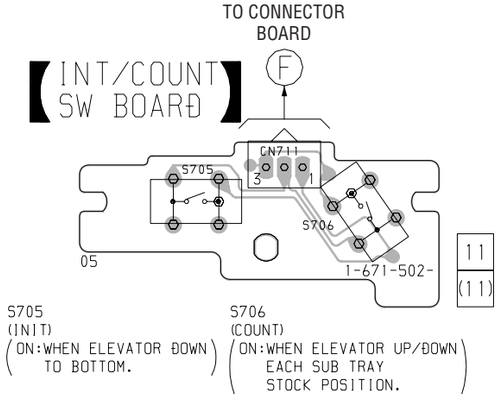
【CLAMP MOTOR BOARD】



【LOAD MOTOR BOARD】

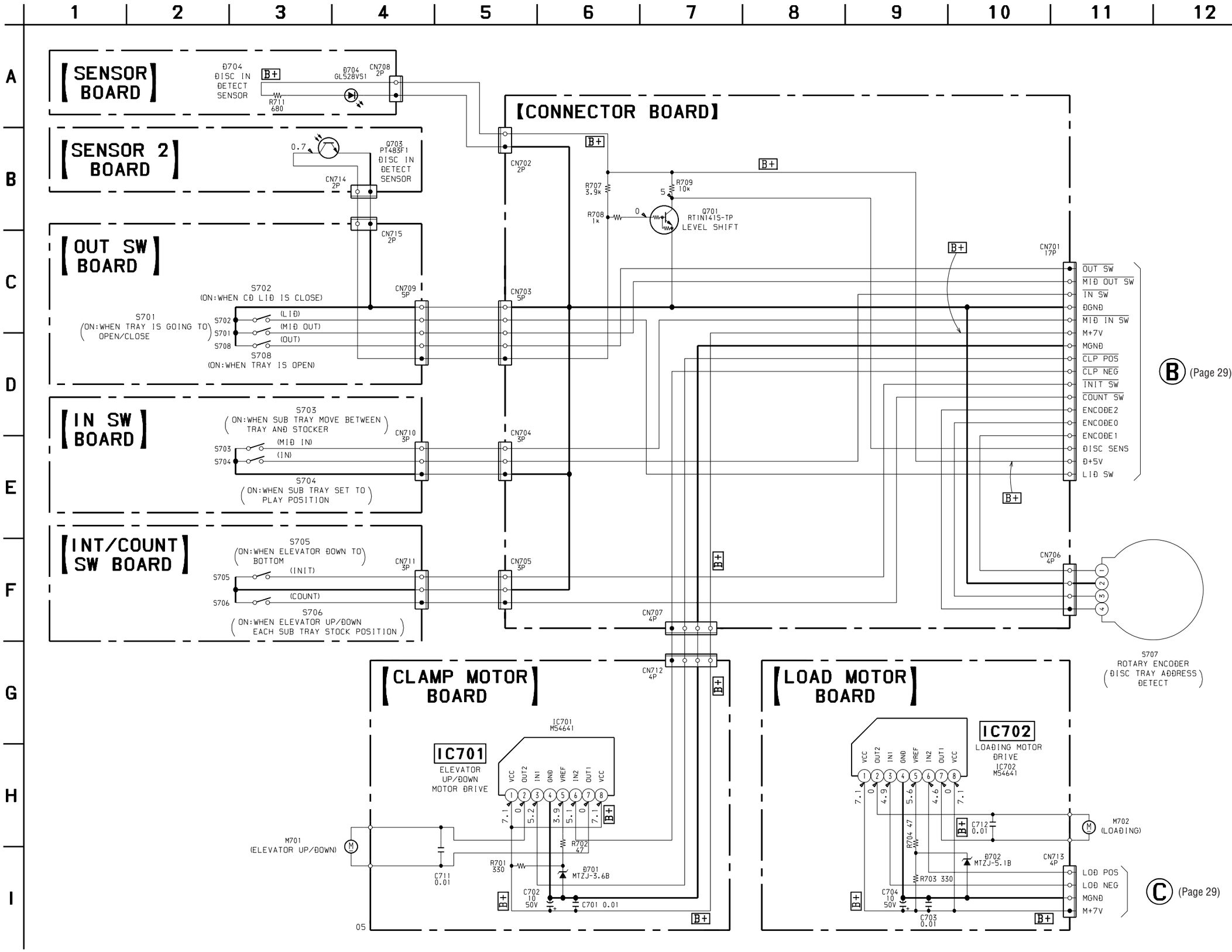


【INT/COUNT SW BOARD】

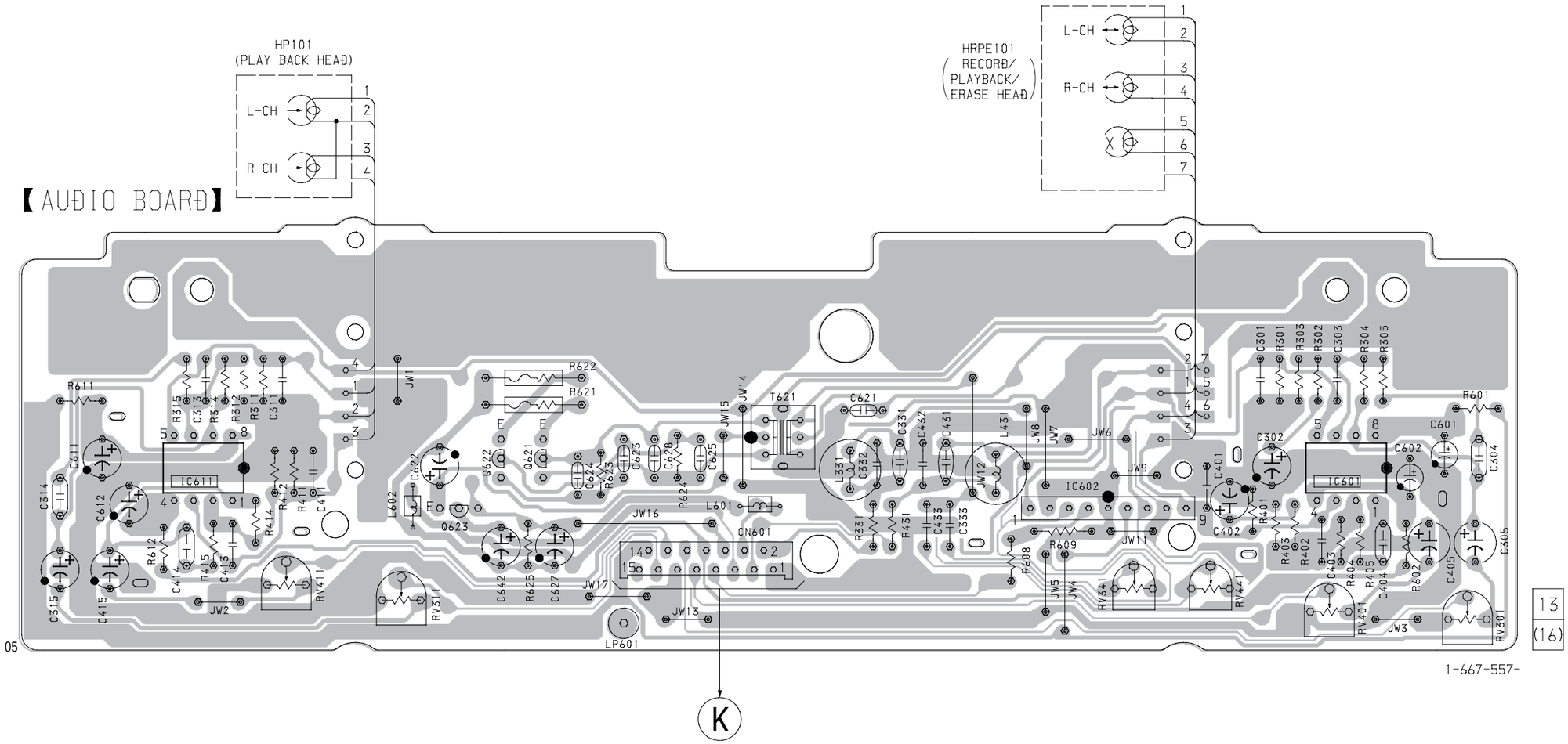


7-5. SCHEMATIC DIAGRAM – CD MOTOR/SENSOR Section – • See page 33 for IC Block Diagram.

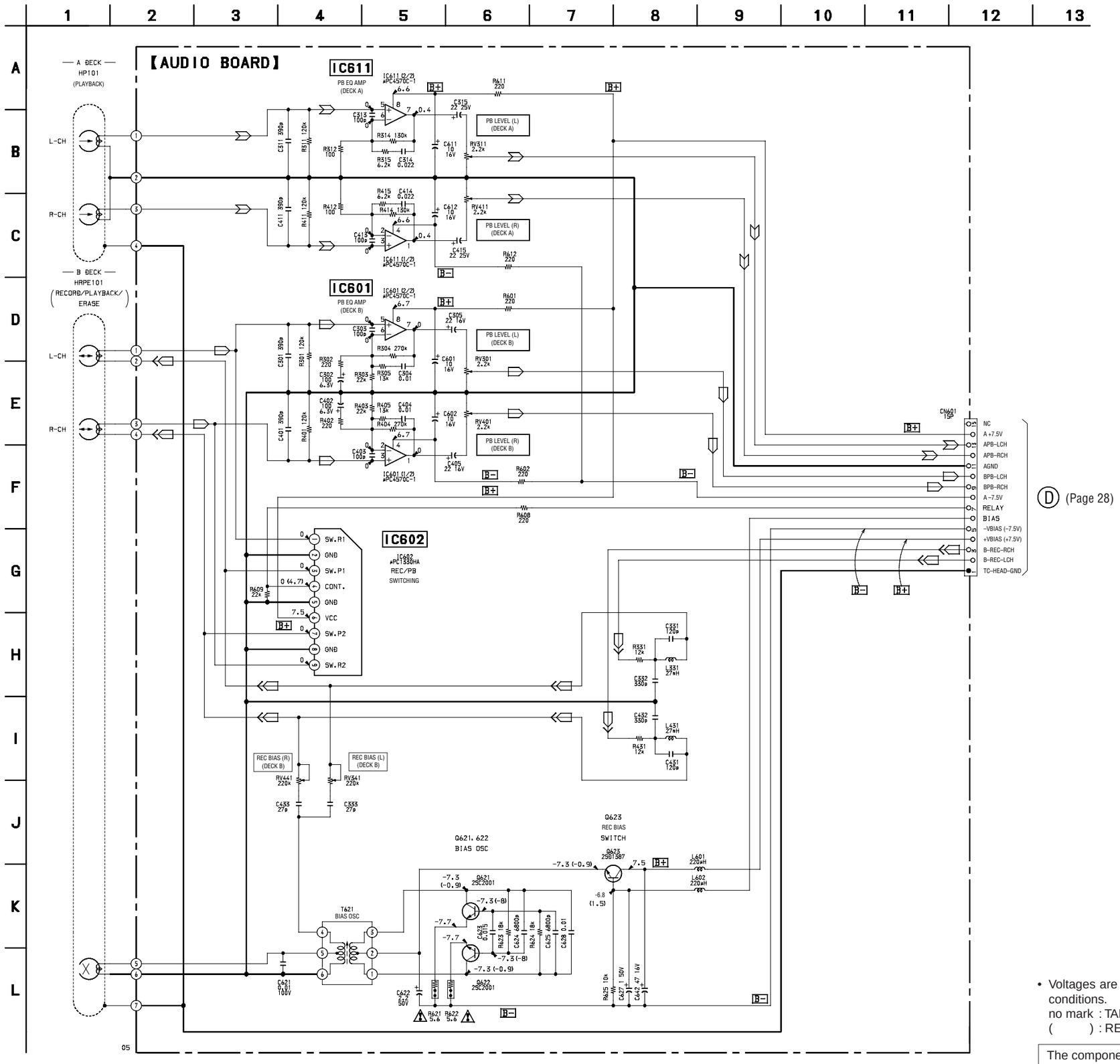
• Voltages are dc with respect to ground under no-signal conditions.
no mark : CD PLAY



7-6. PRINTED WIRING BOARD – AUDIO Board – • See page 19 for Circuit Boards Location.



7-7. SCHEMATIC DIAGRAM – AUDIO Board – • See page 33 for IC Block Diagram.

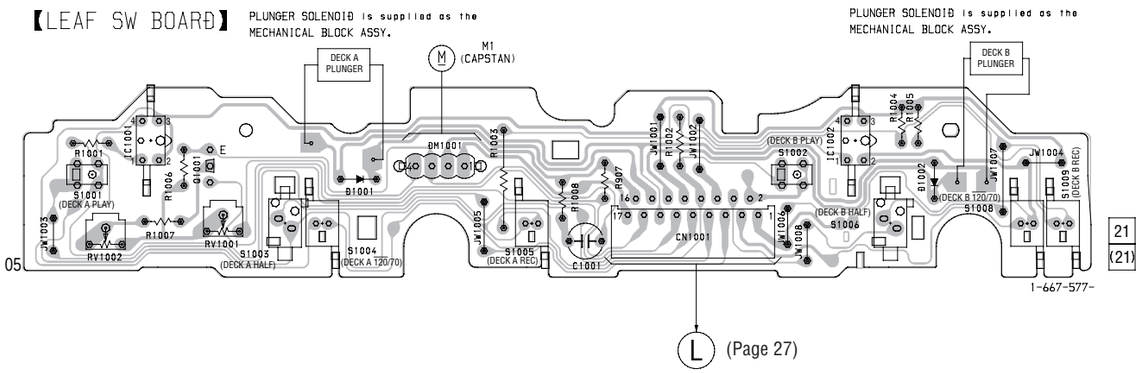


Ⓓ (Page 28)

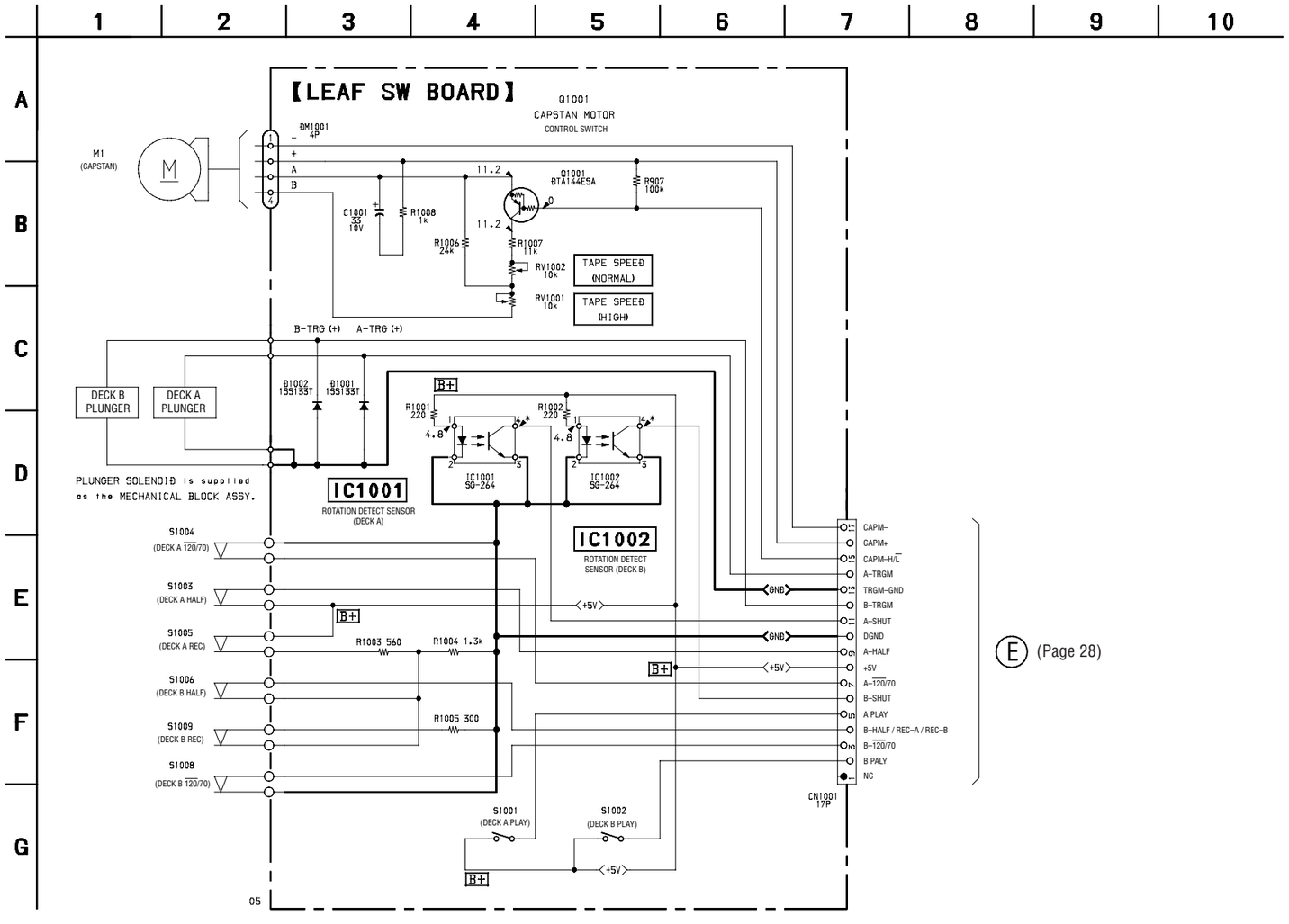
• Voltages are dc with respect to ground under no-signal conditions.
no mark : TAPE PLAYBACK
( ) : RECORD

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

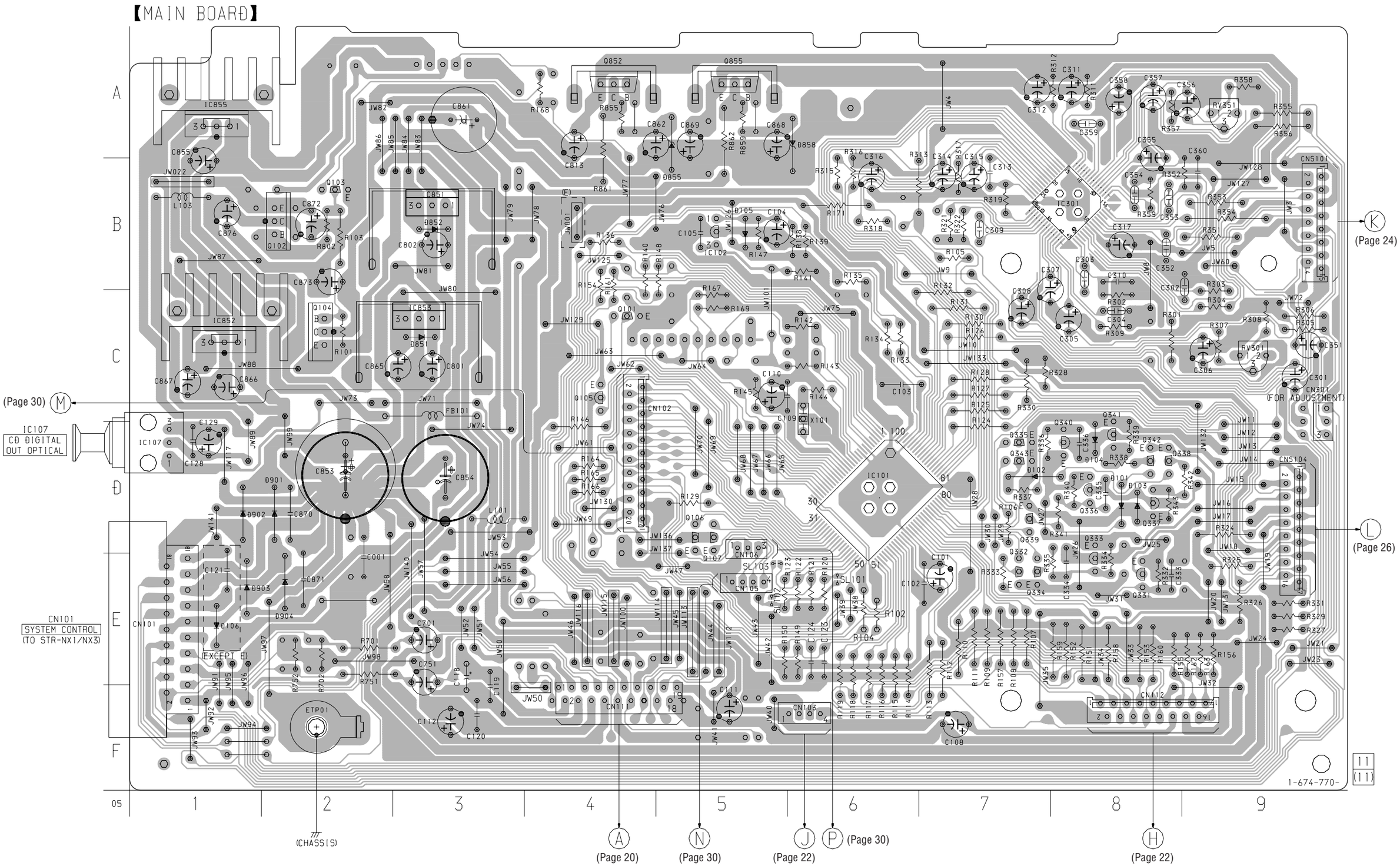
7-8. PRINTED WIRING BOARD – LEAF SW Board – • See page 19 for Circuit Boards Location.



7-9. SCHEMATIC DIAGRAM – LEAF SW Board –



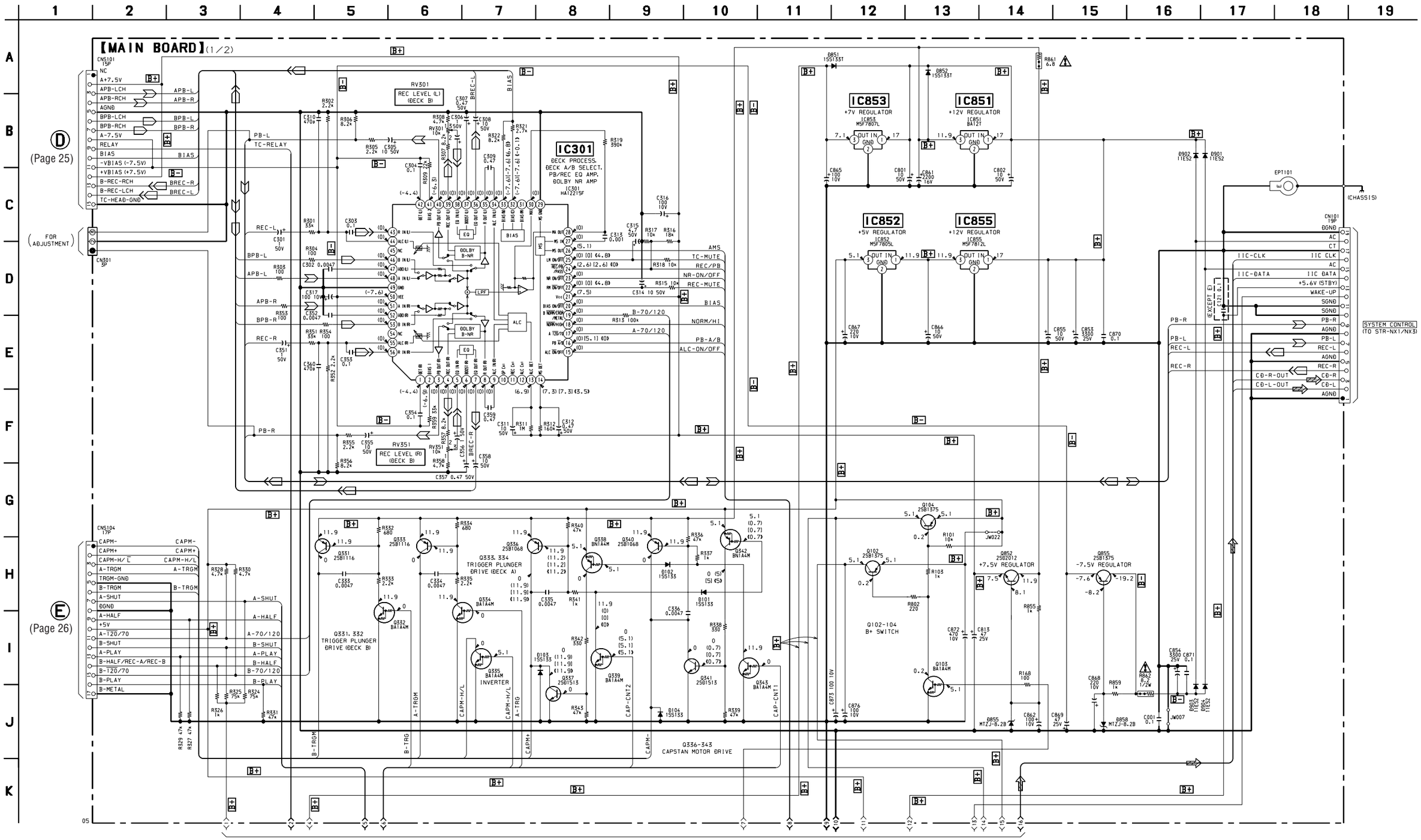
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : TAPE PLAYBACK
  ( ) : RECORD
  ∗ : Impossible to measure



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	D-8	D903	E-1	Q101	C-4	Q336	D-8
D102	D-7	D904	E-2	Q102	B-2	Q337	D-8
D103	D-8			Q103	B-2	Q338	D-8
D104	D-8	IC101	D-6	Q104	C-2	Q339	D-7
D105	B-5	IC102	B-5	Q105	C-4	Q340	D-8
D106	E-1	IC107	D-1	Q106	D-5	Q341	D-8
D851	C-3	IC301	B-8	Q107	D-5	Q342	D-8
D852	B-3	IC851	B-3	Q331	E-8	Q343	D-7
D855	A-5	IC852	C-1	Q332	E-7	Q852	A-4
D858	A-6	IC853	C-3	Q333	E-8	Q855	A-5
D901	D-2	IC855	A-1	Q334	E-7		
D902	D-1			Q335	D-7		

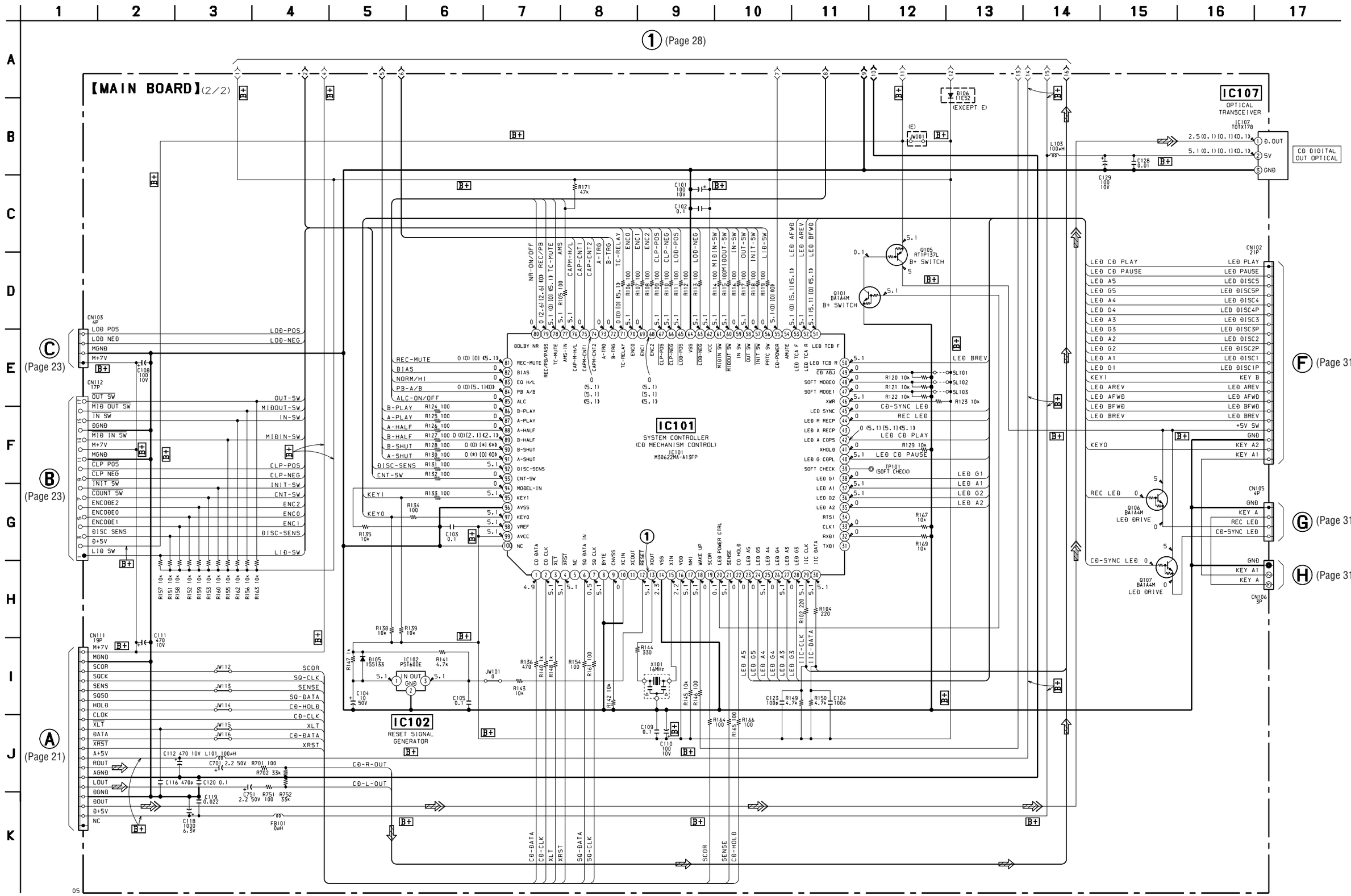
7-11. SCHEMATIC DIAGRAM – MAIN Board (1/2) –



- Voltages are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ( ) : TAPE PLAYBACK (DECK A)
  [ ] : TAPE PLAYBACK (DECK B)
  〈〈 〉〉 : RECORD

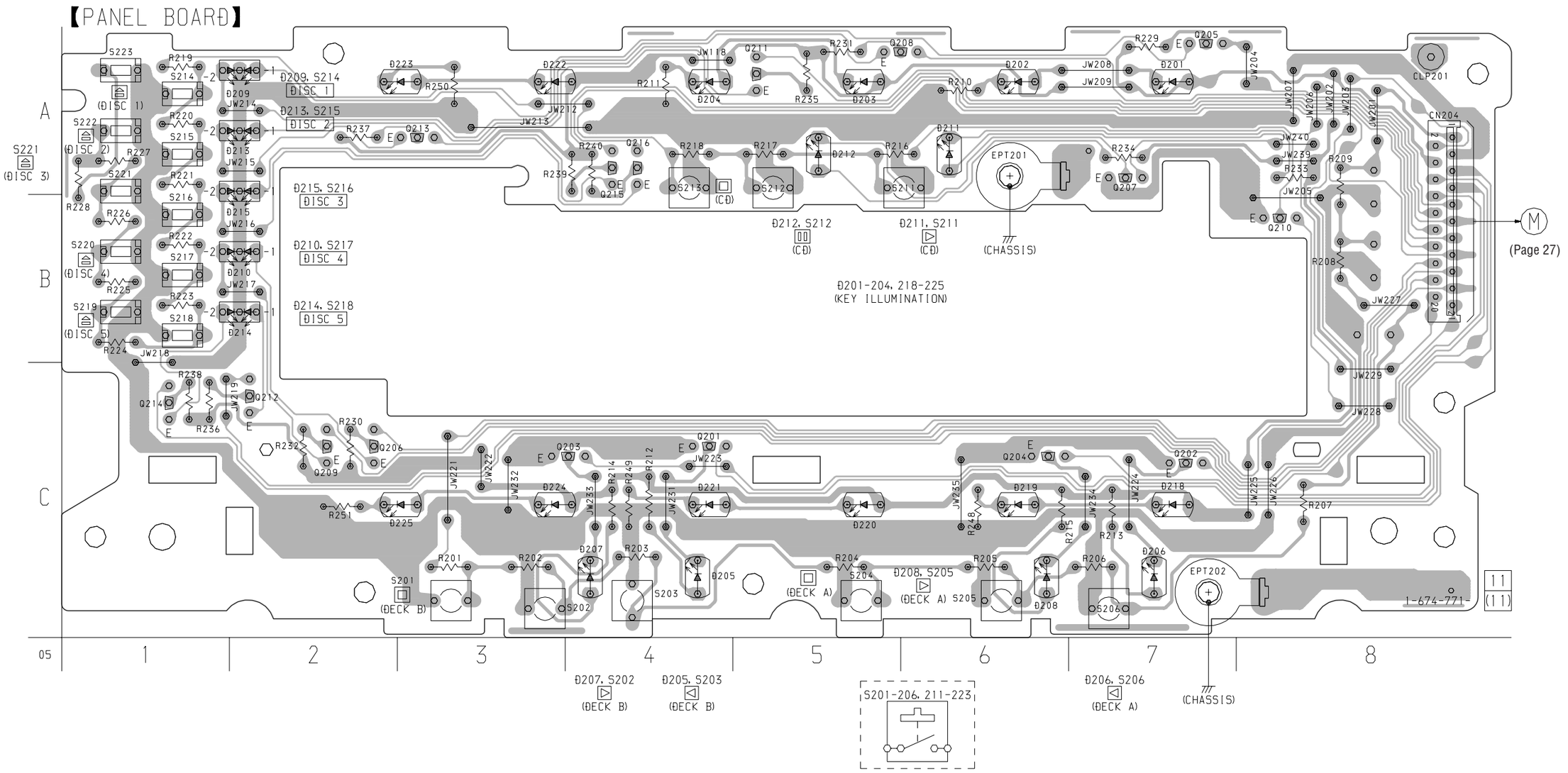
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-12. SCHEMATIC DIAGRAM – MAIN Board (2/2) – • See page 32 for Waveform.



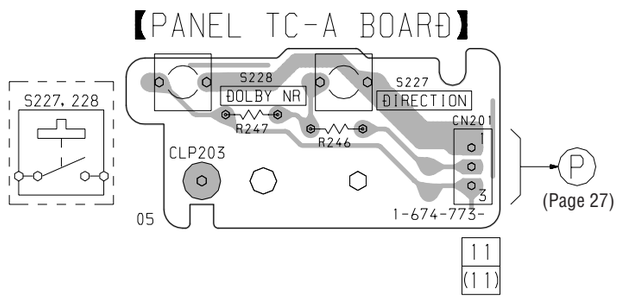
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ( ) : TAPE PLAYBACK (DECK A)
  [ ] : TAPE PLAYBACK (DECK B)
  ⟨⟨ ⟩⟩ : RECORD
  ∗ : Impossible to measure

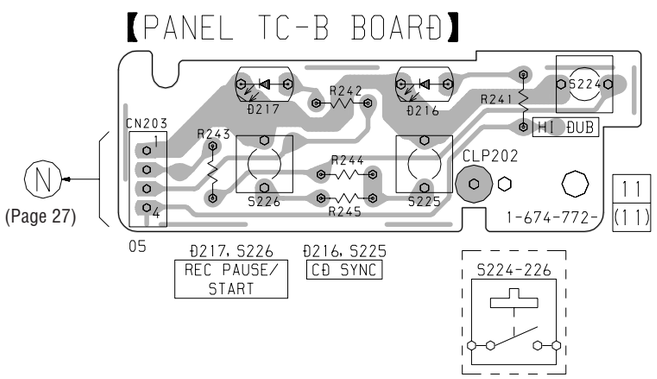
7-13. PRINTED WIRING BOARDS – PANEL Section – • See page 19 for Circuit Boards Location.

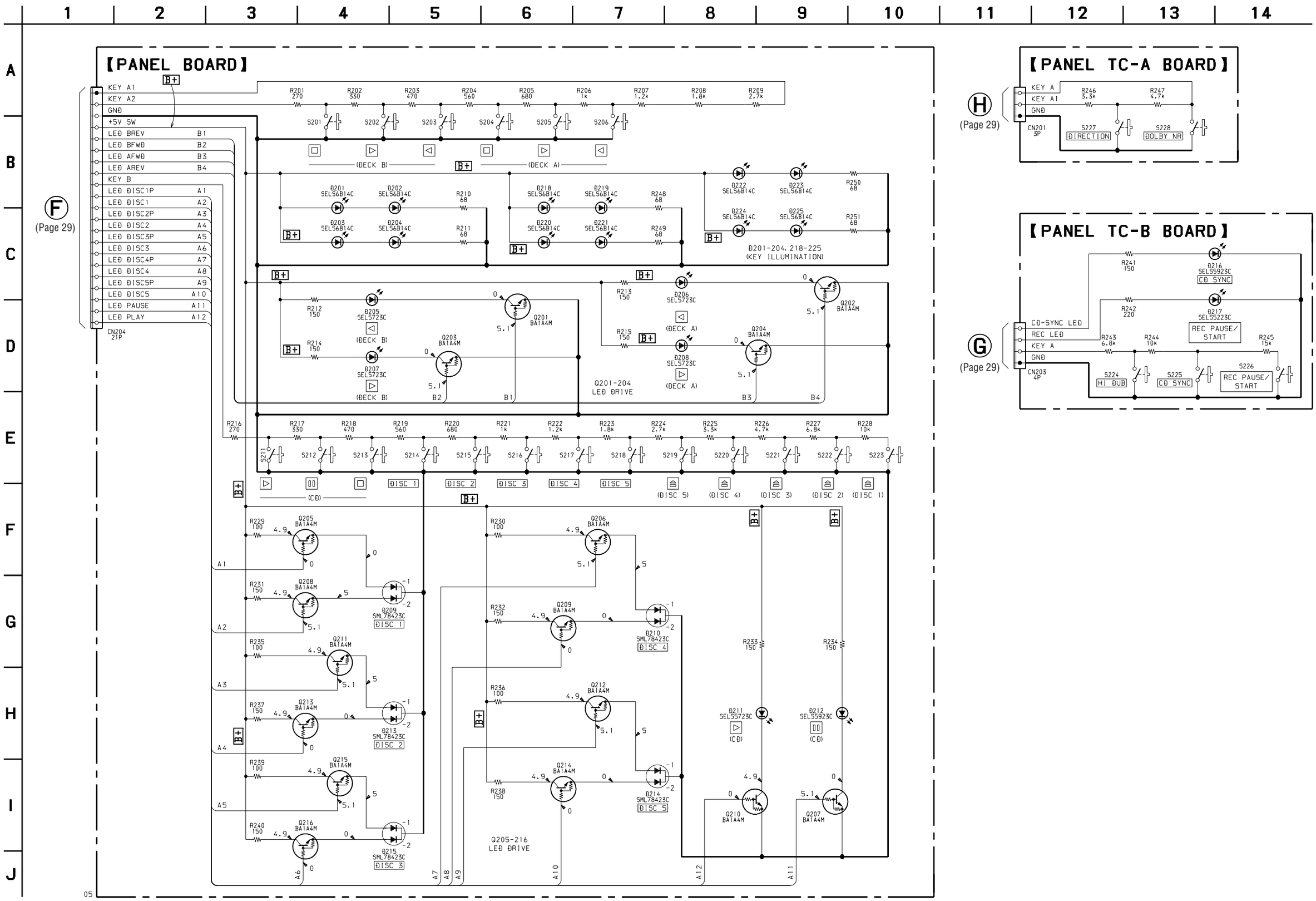


- **Semiconduc**
  – PANEL Board –

Ref. No.	Location	Ref. No.	Location
D201	A-7	D223	A-3
D202	A-6	D224	C-3
D203	A-5	D225	C-3
D204	A-4		
D205	C-4	Q201	C-4
D206	C-7	Q202	C-7
D207	C-4	Q203	C-4
D208	C-6	Q204	C-6
D209	A-2	Q205	A-7
D210	B-2	Q206	C-2
D211	A-6	Q207	A-7
D212	A-5	Q208	A-6
D213	A-2	Q209	C-2
D214	B-2	Q210	B-8
D215	A-2	Q211	A-5
D218	C-7	Q212	C-2
D219	C-6	Q213	A-3
D220	C-5	Q214	C-1
D221	C-4	Q215	A-4
D222	A-3	Q216	A-4





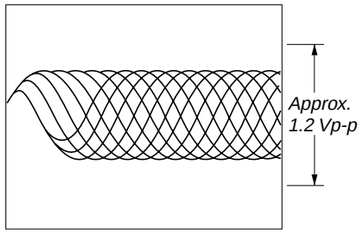


- Voltages are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY

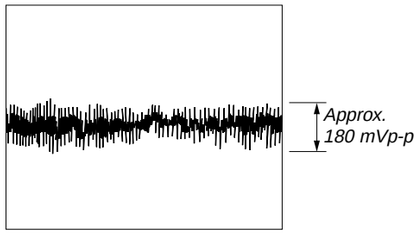
• Waveforms

– BD Board –

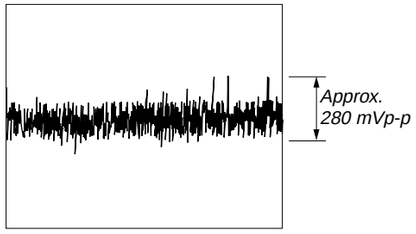
❶ IC103 ⑯ (RF O) (CD Play Mode)



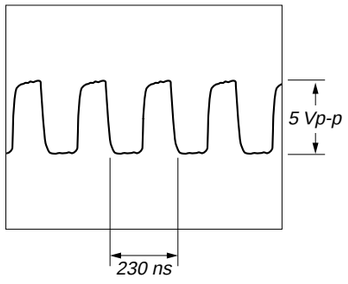
❷ IC101 ㊶ (TE) (CD Play Mode)



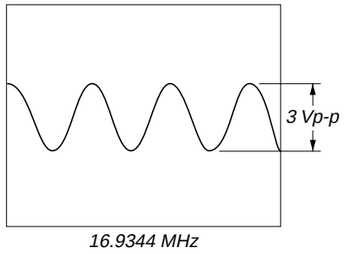
❸ IC101 ㊴ (FE) (CD Play Mode)



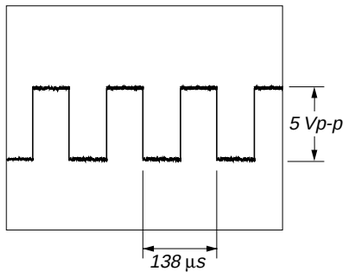
❹ IC101 ⑰ (XPCK)



❺ IC101 ㊻ (XTAI)

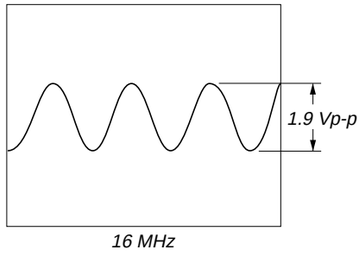


❻ IC101 ⑮ (WFCK)



– MAIN Board –

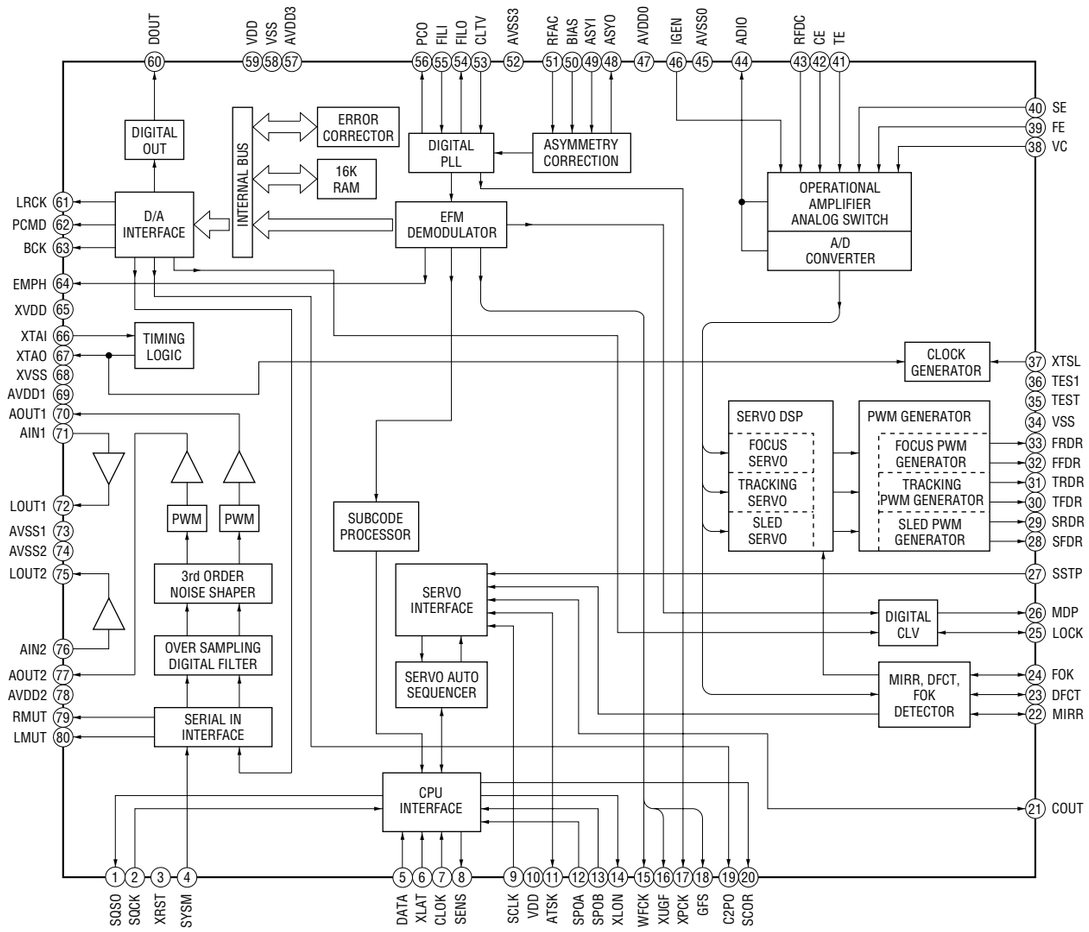
❶ IC101 ⑬ (XOUT)



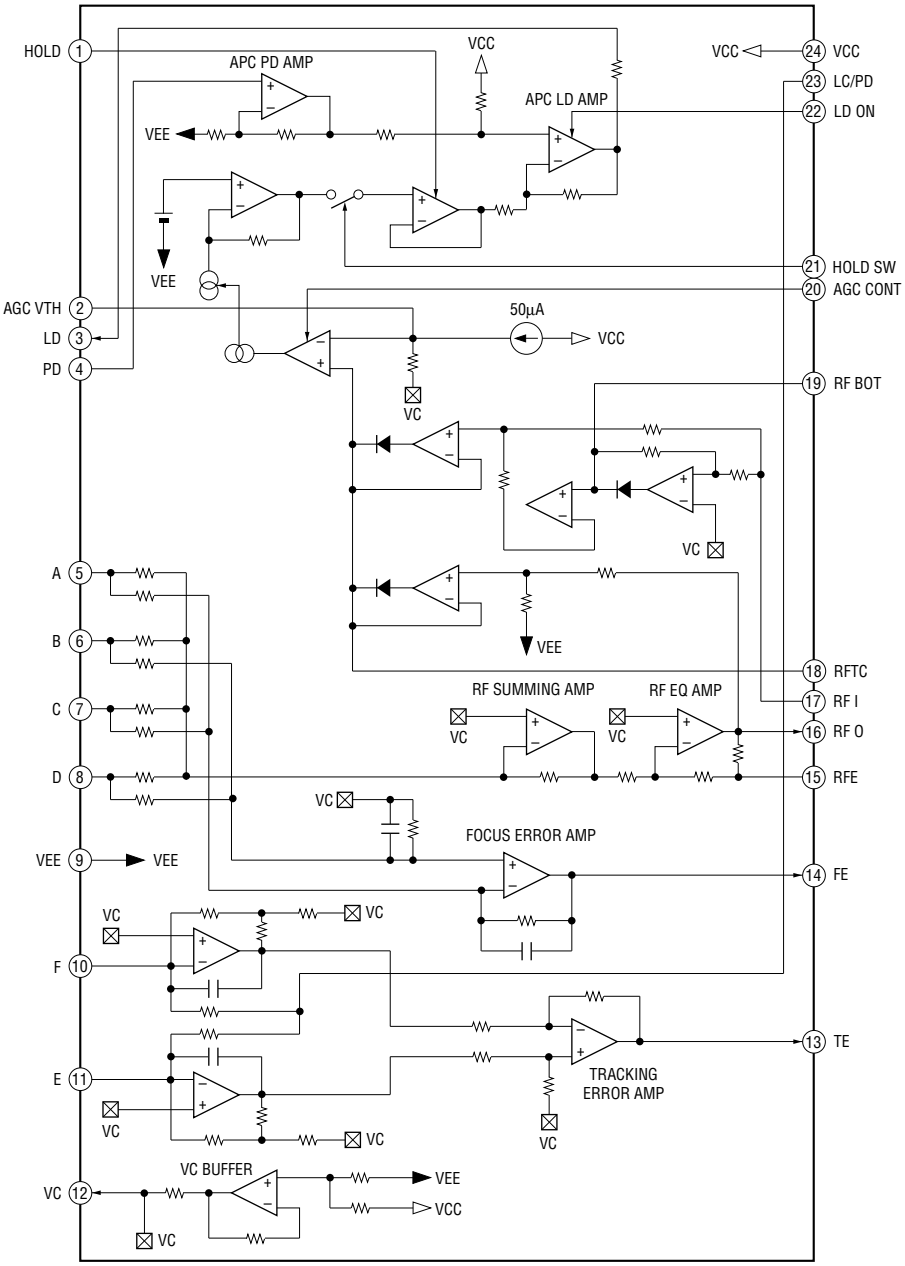
• IC Block Diagrams

– BD Board –

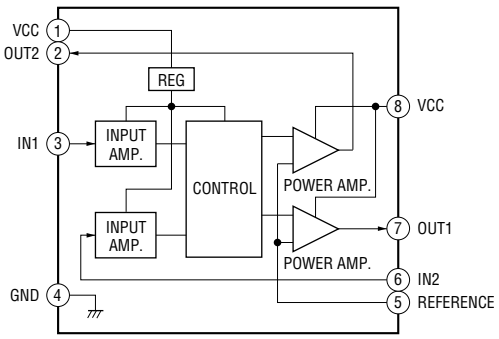
IC101 CXD2587Q



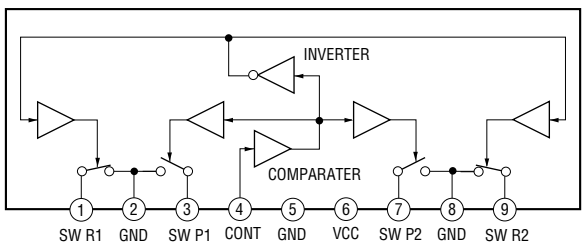
IC103 CXA2568M-T6



– CLAMP MOTOR/LOAD MOTOR Board –
IC701 M54641L (CLAMP MOTOR Board)
IC702 M54641L (LOAD MOTOR Board)



– AUDIO Board –
IC602 µPC1330HA



7-15. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC101 M30622MA-A13FP (SYSTEM CONTROLER (CD MECHANISM CONTROL))

Pin No.	Pin Name	I/O	Description
1	CD DATA	O	Serial data output to the CXD2587Q (IC101) on the CD block
2	CD CLK	O	Serial data transfer clock signal output to the CXD2587Q (IC101) on the CD block
3	$\overline{\text{XLT}}$	O	Serial data latch pulse output to the CXD2587Q (IC101) on the CD block
4	$\overline{\text{XRST}}$	O	Reset signal output to the CXD2587Q (IC101) and BA5974FP (IC102) on the CD block "L": reset
5	NC	O	Not used (open)
6	SQ DATA IN	I	Subcode Q data input from the CXD2587Q (IC101) on the CD block
7	SQ CLK	O	Subcode Q data reading clock signal output to the CXD2587Q (IC101) on the CD block
8	BYTE	I	External data bus line byte selection signal input terminal Fixed at "L" in this set
9	CNVSS	—	Ground terminal
10	XCIN	I	Sub system clock input terminal Not used (fixed at "L")
11	XCOUT	O	Sub system clock output terminal Not used (open)
12	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC102) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
13	XOUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Main system clock input terminal (16 MHz)
16	VDD	—	Power supply terminal (+5V)
17	NMI	I	Non-maskable interrupt input terminal Fixed at "H" in this set
18	WAKE UP	I	Wakeup control signal input from the CPU in the STR-NX1/NX3 "H" active
19	SCOR	I	Subcode sync (S0+S1) detection signal input from the CXD2587Q (IC101) on the CD block
20	LED POWER CTRL	O	Power on/off control signal output of the key illumination LED (D201 to D204, D218 to D225) "H": LED on
21	SENSE	I	Internal status detection monitor input from the CXD2587Q (IC101) on the CD block
22	CD HOLD	O	Laser power control signal output to the CXA2568M (IC103) on the CD block
23	LED A5	O	LED drive signal output of the DISC 5 indicator (D214) (for amber color)
24	LED G5	O	LED drive signal output of the DISC 5 indicator (D214) (for red color)
25	LED A4	O	LED drive signal output of the DISC 4 indicator (D210) (for amber color)
26	LED G4	O	LED drive signal output of the DISC 4 indicator (D210) (for red color)
27	LED A3	O	LED drive signal output of the DISC 3 indicator (D215) (for amber color)
28	LED G3	O	LED drive signal output of the DISC 3 indicator (D215) (for red color)
29	IIC CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the CPU in the STR-NX1/NX3
30	IIC DATA	I/O	Communication data bus with the CPU in the STR-NX1/NX3
31	TXD1	O	Not used (open)
32	RXD1	I	Not used (fixed at "L")
33	CLK1	I	Not used (fixed at "L")
34	RTS1	O	Not used (open)
35	LED A2	O	LED drive signal output of the DISC 2 indicator (D213) (for amber color)
36	LED G2	O	LED drive signal output of the DISC 2 indicator (D213) (for red color)
37	LED A1	O	LED drive signal output of the DISC 1 indicator (D209) (for amber color)
38	LED G1	O	LED drive signal output of the DISC 1 indicator (D209) (for red color)
39	SOFT CHECK	O	Output terminal for the software check Not used (open)
40	LED G CDPS	O	LED drive signal output of the □□ (CD) indicator (D212) "L": LED on
41	XHOLD	I	Not used (fixed at "L")

Pin No.	Pin Name	I/O	Description
42	LED A CDPL	O	LED drive signal output of the ▷ (CD) indicator (D211) "L": LED on
43	LED A RECP	O	LED drive signal output terminal Not used (open)
44	LED R RECP	O	LED drive signal output of the REC PAUSE/START indicator (D217) "H": LED on
45	LED SYNC	O	LED drive signal output of the CD SYNC indicator (D216) "H": LED on
46	XWR	I	Not used (fixed at "H")
47	SOFT MODE1	I	Destination setting terminal (normally: fixed at "L")
48	SOFT MODE0	I	Destination setting terminal (normally: fixed at "L")
49	$\overline{\text{CD ADJ}}$	I	Setting terminal for the CD test mode Normally: fixed at "H" ("L": test mode)
50	LED TCB R	O	LED drive signal output of the ◁ (DECK B) indicator (D205) "L": LED on
51	LED TCB F	O	LED drive signal output of the ▷ (DECK B) indicator (D207) "L": LED on
52	LED TCA R	O	LED drive signal output of the ◁ (DECK A) indicator (D206) "L": LED on
53	LED TCA F	O	LED drive signal output of the ▷ (DECK A) indicator (D208) "L": LED on
54	AMUTE	O	Analog line muting on/off control signal output terminal "H": line muting on Not used (open)
55	CD-POWER	O	Power on/off control signal output of the CD mechanism deck section "L": standby mode, "H": power on
56	PRTC SW	I	Detection input from the CD tray door open/close detect switch (S702) "L": when CD lid is open, "H": when CD lid is close
57	$\overline{\text{INIT SW}}$	I	Detection input from the INIT detection switch (S705) on the CD mechanism block "L": when elevator down to bottom, others: "H"
58	$\overline{\text{OUT SW}}$	I	Detection input from the tray open/close detect switch (S708) on the CD mechanism block "L": when tray is open, "H": when tray is close
59	$\overline{\text{IN SW}}$	I	Detection input from the tray open/close detect switch (S704) on the CD mechanism block "L": when tray is close, "H": when tray is open
60	$\overline{\text{MIDOUT SW}}$	I	Detection input from the mid out detect switch (S701) on the CD mechanism block "L": when tray is going to open or close
61	$\overline{\text{MIDIN SW}}$	I	Detection input from the mid in detect switch (S703) on the CD mechanism block "L": when sub tray move between tray and stocker
62	VCC	—	Power supply terminal (+5V)
63	$\overline{\text{LOD-NEG}}$	O	CD loading motor (M702) control signal output to the motor driver IC (IC702) "L" active *1
64	VSS	—	Ground terminal
65	$\overline{\text{LOD-POS}}$	O	CD loading motor (M702) control signal output to the motor driver IC (IC702) "L" active *1
66	$\overline{\text{CLP-NEG}}$	O	CD elevator up/down motor (M701) control signal output to the motor driver IC (IC701) "L" active *2
67	$\overline{\text{CLP-POS}}$	O	CD elevator up/down motor (M701) control signal output to the motor driver IC (IC701) "L" active *2
68 to 70	ENC2, ENC1,ENC0	I	Detection input from the disc tray address detect rotary encoder (S707) on the CD mechanism block
71	TC-RELAY	O	Recording/playback select signal output to the REC/PB switch (IC602) "L": playback, "H": recording
72	B-TRG	O	Deck-B side trigger plunger drive signal output terminal "H": plunger on
73	A-TRG	O	Deck-A side trigger plunger drive signal output terminal "H": plunger on

*1 CD loading motor (M702) control

Terminal \ Mode	Loading	Eject	Stop	Brake
$\overline{\text{LOD-NEG}}$ (pin ⑥③)	"L"	"H"	"H"	"L"
$\overline{\text{LOD-POS}}$ (pin ⑥⑤)	"H"	"L"	"H"	"L"

*2 CD elevator up/down motor (M701) control

Terminal \ Mode	Elevator Up	Elevator Down	Stop	Brake
$\overline{\text{CLP-NEG}}$ (pin ⑥⑥)	"L"	"H"	"H"	"L"
$\overline{\text{CLP-POS}}$ (pin ⑥⑦)	"H"	"L"	"H"	"L"

Pin No.	Pin Name	I/O	Description
74	CAPM-CNT2	O	Capstan motor (M1) drive signal output terminal “H” active *3
75	CAPM-CNT1	O	Capstan motor (M1) drive signal output terminal “H” active *3
76	CAP-M-H/L	O	High/normal speed selection signal output of the capstan motor (M1) “L”: normal speed, “H”: high speed
77	AMS-IN	I	Whether a music is present or not from the HA12215F (IC301) is detected an automatic music sensor “L”: music is present, “H”: music is not present
78	TC-MUTE	O	Line muting on/off selection signal output to the HA12215F (IC301) “L”: muting off, “H”: muting on
79	REC/PB/PASS	O	Recording/playback/pass selection signal output to the HA12215F (IC301) “L”: recording mode, “H”: pass, “Hi-z”: playback mode
80	DOLBY NR	O	Dolby NR on/off selection signal output to the HA12215F (IC301) “L”: dolby off, “H”: dolby on
81	REC-MUTE	O	Recording muting on/off selection signal output to the HA12215F (IC301) “L”: muting on, “H”: muting off
82	BIAS	O	Recording bias on/off selection signal output to the HA12215F (IC301) “L”: bias off, “H”: bias on
83	EQ-H/N	O	Normal/high speed selection signal output to the HA12215F (IC301) “L”: normal speed, “H”: high speed
84	PB-A/B	O	Deck-A/B selection signal output to the HA12215F (IC301) “L”: deck-A, “H”: deck-B
85	ALC	O	Automatic limiter control signal output to the HA12215F (IC301) “L”: limiter on
86	B-PLAY-SW	I	Detection input from the deck-B play detect switch (S1002) “H”: deck-B play
87	A-PLAY-SW	I	Detection input from the deck-A play detect switch (S1001) “H”: deck-A play
88	A-HALF	I	Detection input from the deck-A cassette detect switch (S1003) “L”: cassette in, “H”: no cassette
89	B-HALF	I	Detection input from the deck-B half detect switch (S1006)
90	B-SHUT	I	Shut off detection signal input from the deck-B side reel pulse detector (IC1002)
91	A-SHUT	I	Shut off detection signal input from the deck-A side reel pulse detector (IC1001)
92	DISC-SENS	I	Detection input from the disc in detect sensor (D704 and Q703) on the CD mechanism block “H”: disc detected
93	CNT-SW	I	Detection input from the count detect switch (S706) on the CD mechanism block “L”: when elevator up/down each sub tray stock position
94	MODEL-IN	I	Destination setting terminal
95	KEY1	I	Key input terminal (A/D input) S211 to S223 (▷/▯▯/□ (CD), DISC 1/2/3/4/5, ⏏ (DISC 5/4/3/2/1)) keys input
96	AVSS	—	Ground terminal (for A/D conversion)
97	KEY0	I	Key input terminal (A/D input) S201 to S206, S224 to S228 (□/▷/◁ (DECK B), □/▷/◁ (DECK A), HI DUB, CD SYNC, REC PAUSE/START, DIRECTION, DOLBY NR) keys input
98	VREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
99	AVCC	—	Power supply terminal (+5V) (for A/D conversion)
100	NC	I	Not used (fixed at “L”)

*3 Capstan motor (M1) control

Mode / Terminal	Stop	Forward Direction	Reverse Direction	Brake
CAPM-CNT2 (pin ⑭)	“L”	“H”	“L”	“H”
CAPM-CNT1(pin ⑮)	“L”	“L”	“H”	“H”

SECTION 8
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of the electrical parts list.

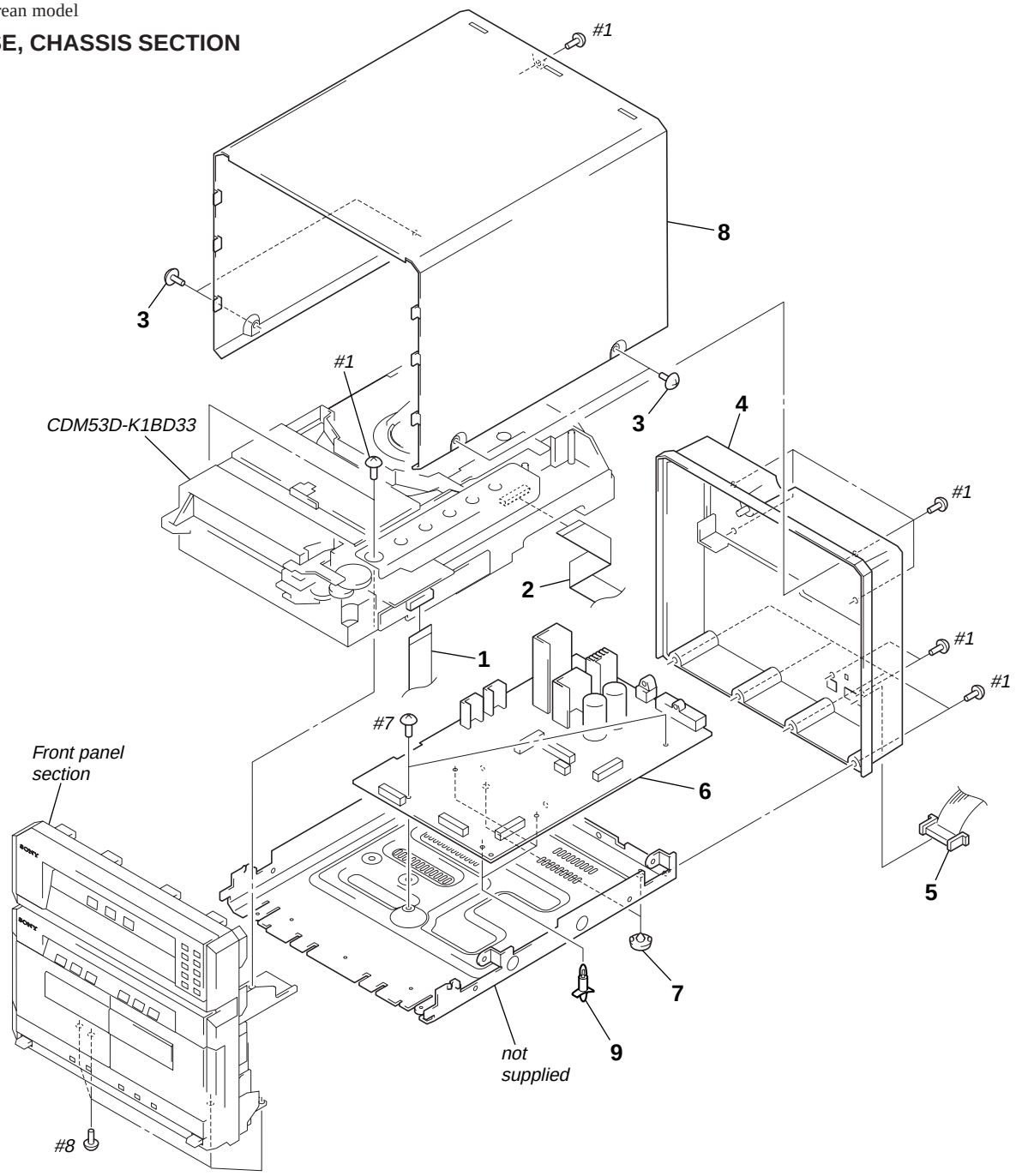
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Abbreviation

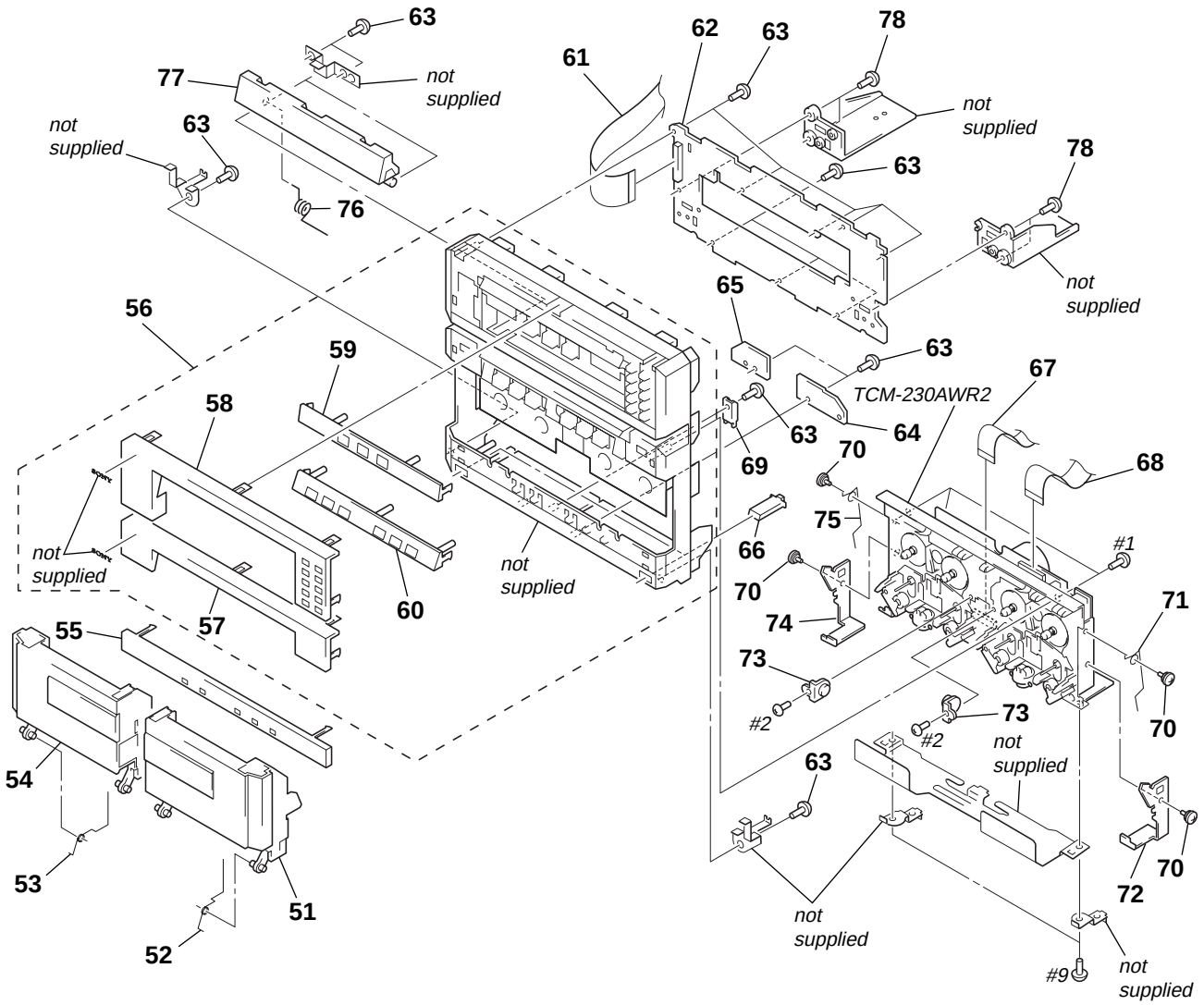
AUS : Australian model	MY : Malaysia model
CND : Canadian model	SP : Singapore model
JE : Tourist model	TH : Thai model
KR : Korean model	

(1) CASE, CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	1-773-040-11	WIRE (FLAT TYPE) (17 CORE) (12cm)	
2	1-791-433-11	WIRE (FLAT TYPE) (19 CORE)	
3	3-363-099-11	SCREW (CASE 3 TP2)	
4	4-221-455-01	PANEL, BACK (EXCEPT US)	
4	4-221-455-11	PANEL, BACK (US)	
5	1-791-075-11	CORD, CONNECTION	
6	A-4426-608-A	MAIN BOARD, COMPLETE (US, CND, AEP, UK)	
6	A-4426-609-A	MAIN BOARD, COMPLETE (MY, SP, KR, AUS, JE)	
6	A-4426-945-A	MAIN BOARD, COMPLETE (TH)	
7	4-965-822-01	FOOT	
8	4-221-365-31	CASE	
* 9	4-924-098-51	HOLDER, PC BOARD	

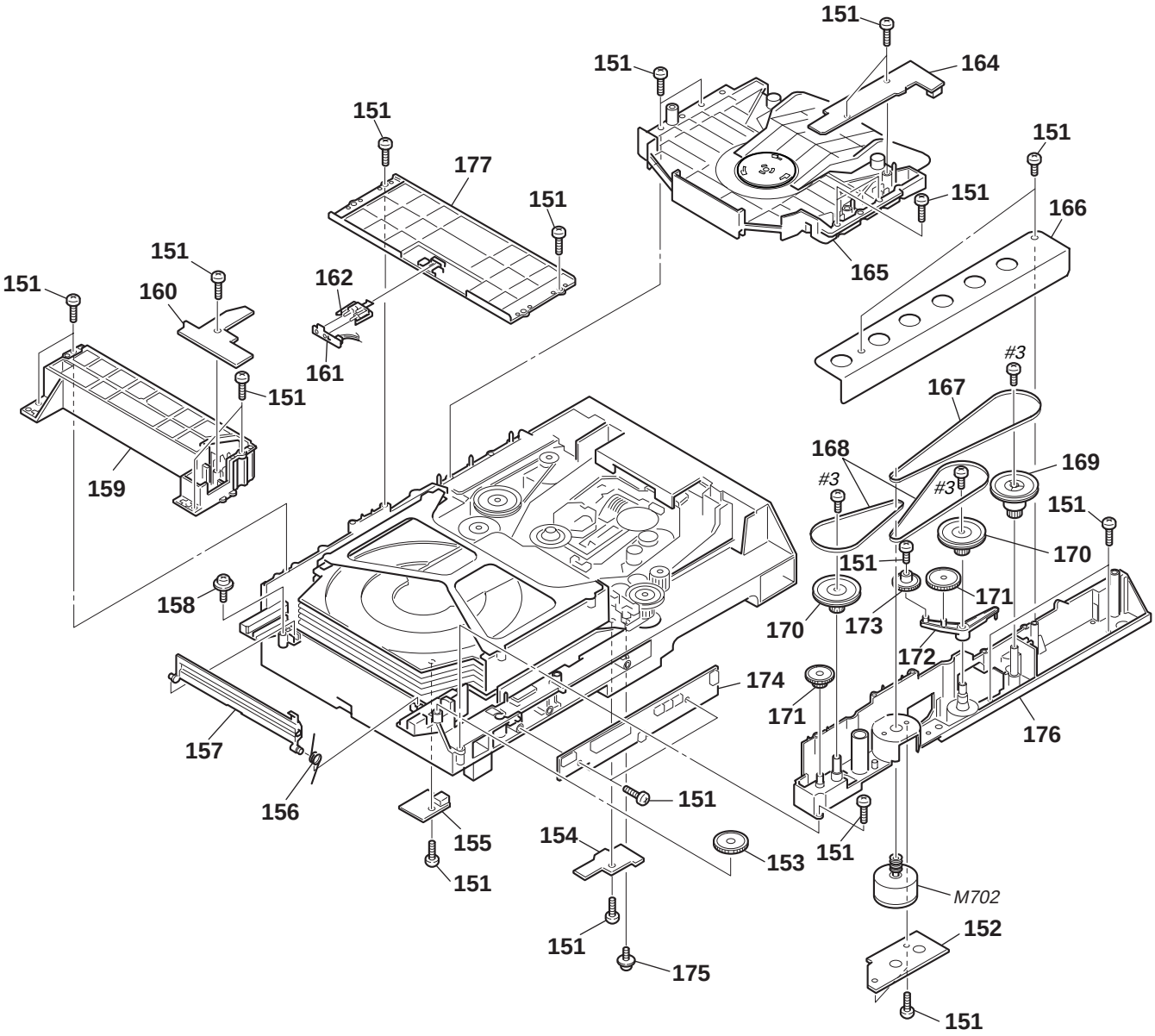
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-4951-821-1	HOLDER (B) ASSY, CASSETTE	
52	4-221-448-01	SPRING (HOLDER B)	
53	4-221-447-01	SPRING (HOLDER A)	
54	X-4951-820-1	HOLDER (A) ASSY, CASSETTE	
55	4-221-434-01	PANEL (TC2), SUB	
56	X-4951-818-1	PANEL ASSY, FRONT	
57	4-221-433-01	PANEL (TC1), SUB	
58	4-221-432-01	PANEL (CD), SUB	
59	4-221-430-01	COVER (CD)	
60	4-221-431-01	COVER (TC)	
61	1-773-170-11	WIRE (FLAT TYPE) (21 CORE)	
62	A-4426-223-A	PANEL BOARD, COMPLETE (EXCEPT TH)	
62	A-4426-942-A	PANEL BOARD, COMPLETE (TH)	
63	4-951-620-01	SCREW (2.6X8), +BVTP	
64	1-674-772-11	PANEL TC-A BOARD	

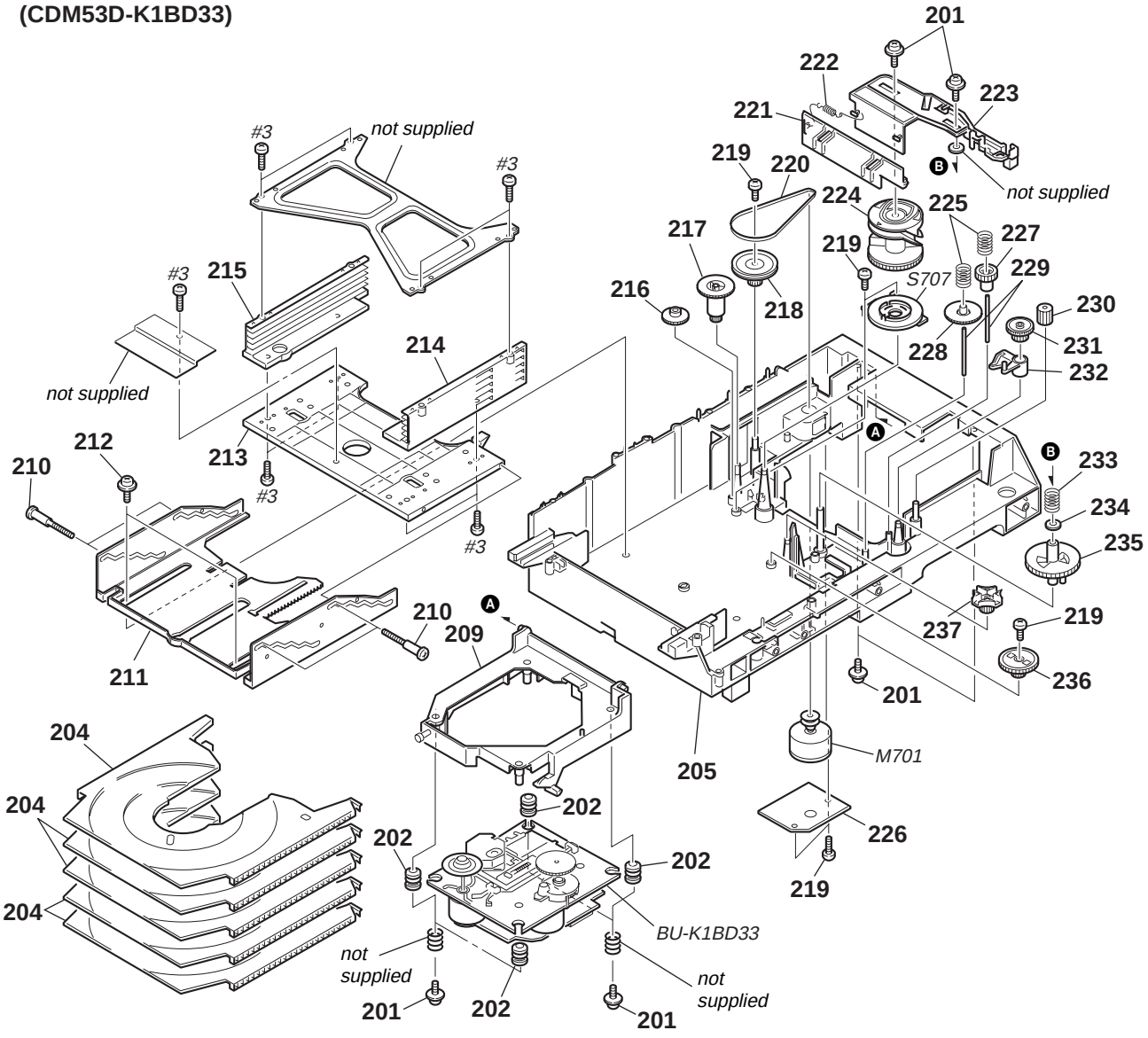
Ref. No.	Part No.	Description	Remark
65	1-674-773-11	PANEL TC-B BOARD	
66	4-221-443-01	BUTTON, EJECT	
67	1-773-004-11	WIRE (FLAT TYPE) (15 CORE)	
68	1-773-044-11	WIRE (FLAT TYPE) (17 CORE) (16cm)	
69	4-221-444-01	PLATE	
70	4-223-952-01	SCREW, STEP	
71	4-221-450-01	SPRING (EJECT B)	
72	4-221-446-01	LEVER (B), EJECT	
73	4-215-062-01	DAMPER	
74	4-221-445-01	LEVER (A), EJECT	
75	4-221-449-01	SPRING (EJECT A)	
76	4-221-451-01	SPRING (CD)	
77	4-221-442-01	LID, CD	
78	4-951-620-11	SCREW (2.6 X 10), +BVTP	

(3) CD MECHANISM DECK SECTION-1 (CDM53D-K1BD33)



Ref. No.	Part No.	Description	Remark
151	4-218-253-01	SCREW (M2.6), +BVTP	
* 152	1-671-508-21	LOAD MOTOR BOARD	
153	4-220-261-01	GEAR (EJECT)	
* 154	1-671-502-21	INT/COUNT SW BOARD	
* 155	1-671-504-21	SENSOR BOARD	
156	4-212-676-03	SPRING (LID), TORSION	
157	4-220-285-01	LID (DISC)	
158	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
159	A-4672-622-F	BASE (GUIDE) ASSY, FITTING	
* 160	1-671-503-21	OUT SW BOARD	
* 161	1-671-789-21	SENSOR 2 BOARD	
162	4-220-274-01	HOLDER (SENSOR)	
* 164	1-671-505-21	IN SW BOARD	
165	A-4680-437-A	MAGNET ASSY	
166	4-214-129-01	COVER	
167	4-211-235-01	BELT (COMMUNICATION)	
168	4-211-236-01	BELT (LOADING)	
169	4-220-278-01	PULLEY (MODE)	
170	4-220-276-01	PULLEY (LD)	
171	4-220-267-01	GEAR (LD DECELERATION)	
172	4-220-272-01	LEVER (GOOSENECK)	
173	4-220-271-01	GEAR (TRAY)	
* 174	1-671-506-21	CONNECTOR BOARD	
175	3-341-549-21	SCREW (2.6X12) (DIA. 7.5), +PTP WH	
176	4-213-488-04	CHASSIS (MOLD B)	
177	4-213-579-01	BRACKET (CHASSIS)	
M702	X-4950-342-1	MOTOR (LOADING) ASSY	

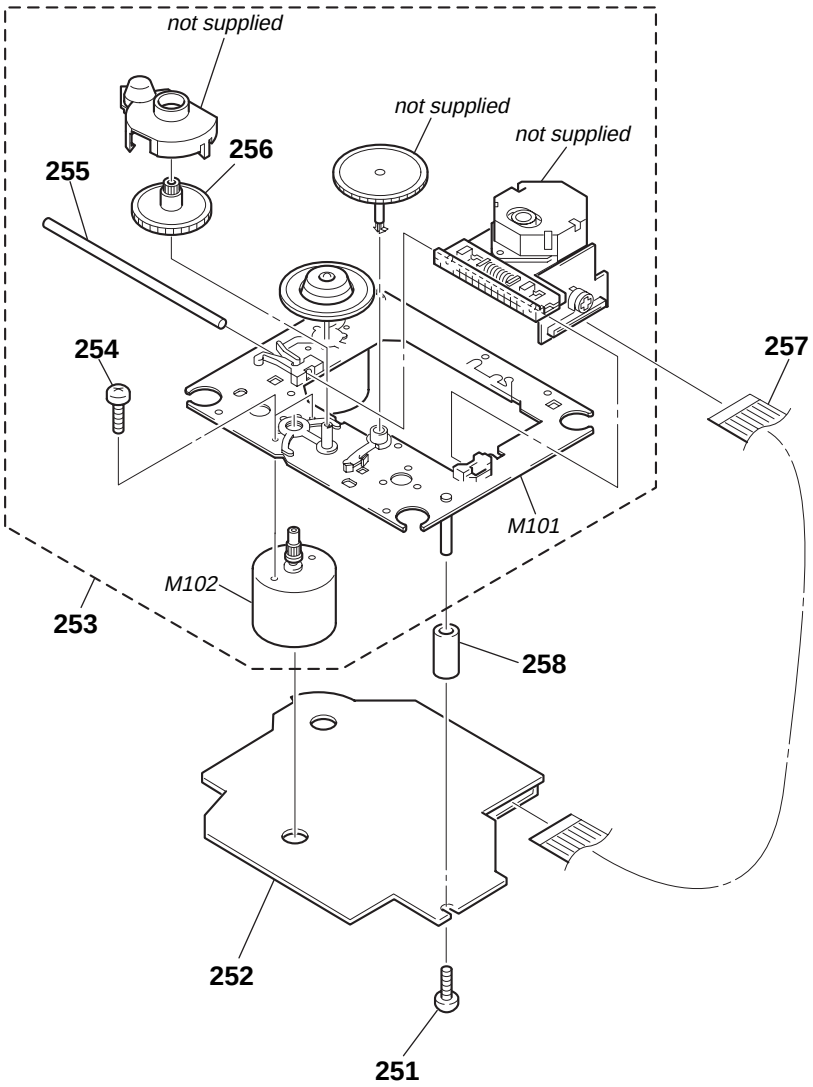
(4) CD MECHANISM DECK SECTION-2 (CDM53D-K1BD33)



Ref. No.	Part No.	Description	Remark
201	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
202	4-220-933-01	INSULATOR	
204	4-213-487-53	TRAY (SUB)	
205	4-213-482-02	CHASSIS (MOLD A)	
209	X-4950-322-3	HOLDER (BU) ASSY	
210	4-211-244-01	SCREW, STEP	
211	4-211-223-04	SLIDER (U/D)	
212	4-933-134-01	SCREW (M2.6), +PTPWH	
213	4-211-224-03	BASE (STOCKER), FITTING	
214	4-211-211-02	STOCKER (R)	
215	4-211-210-03	STOCKER (L)	
216	4-220-261-01	GEAR (EJECT)	
217	4-220-266-01	GEAR (MODE DECELERATION)	
218	4-220-276-01	PULLEY (LD)	
219	4-218-253-01	SCREW (M2.6), +BVTP	
220	4-211-237-01	BELT (MODE)	
221	4-220-283-01	SLIDER (SHUTTER)	
222	4-212-678-01	SPRING (SHUTTER), TENSION	
223	4-220-284-01	SLIDER (SELECTION)	

Ref. No.	Part No.	Description	Remark
224	4-220-275-01	GEAR (CHUCKING)	
225	4-211-245-01	SPRING, COMPRESSION	
* 226	1-671-507-21	CLAMP MOTOR BOARD	
227	4-220-265-01	GEAR (LD MOVABLE)	
228	4-220-269-01	GEAR (SELECTION)	
229	4-211-242-01	SHAFT (SELECTION GEAR)	
230	4-220-268-01	GEAR (LD DECELERATION B)	
231	4-220-262-01	GEAR (RELAY)	
232	4-220-273-01	LEVER (SELECTION)	
233	4-216-879-01	SPRING (GEAR), COIL	
234	3-701-446-21	WASHER	
235	4-220-270-01	GEAR (GEAR A)	
236	4-220-264-01	GEAR (U/D SLIDER)	
237	4-220-263-01	GEAR (GEAR B)	
M701	X-4950-341-1	MOTOR (CLAMP) ASSY (ELEVATOR UP/DOWN)	
S707	1-418-045-01	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	

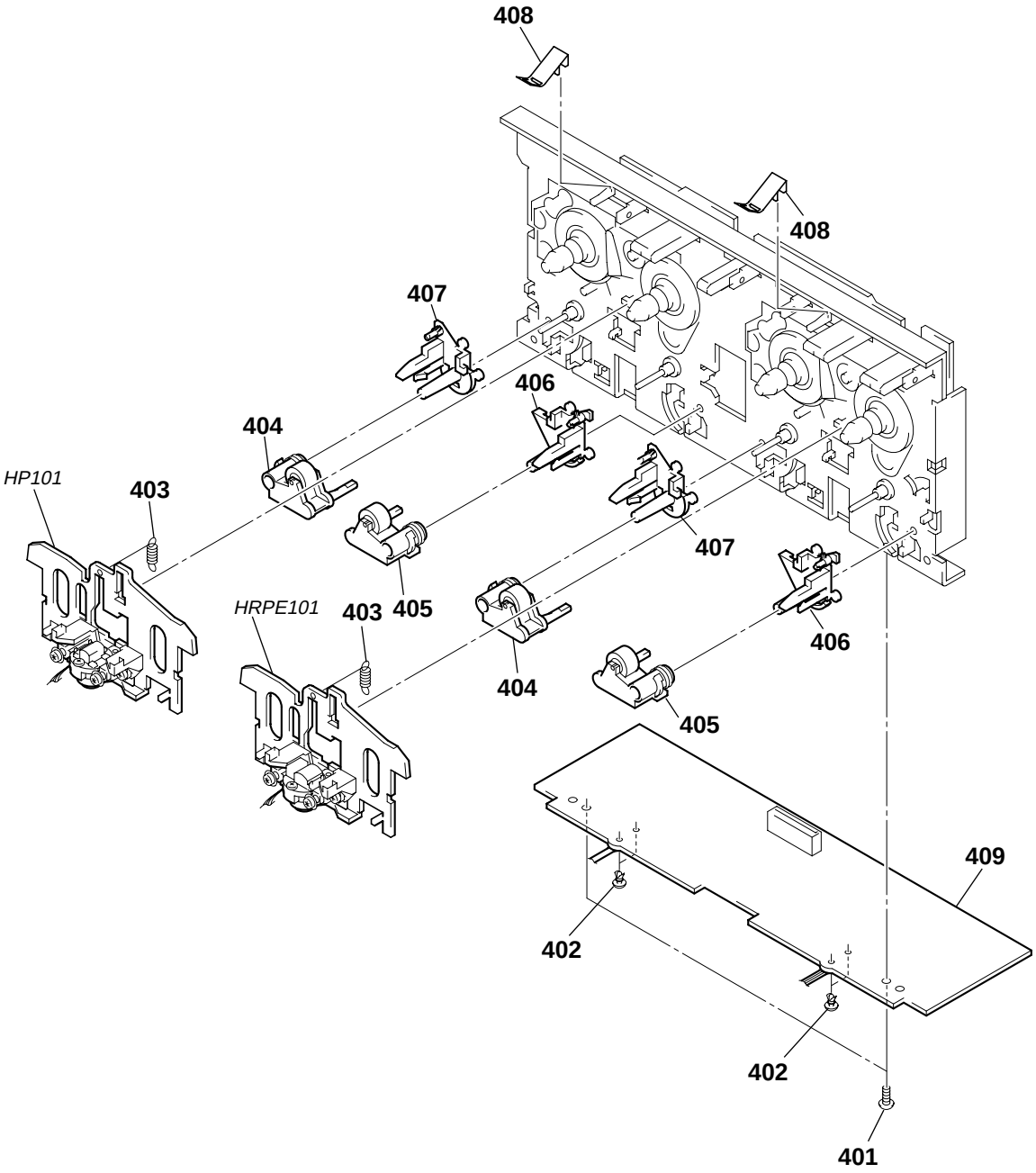
(5) CD BASE UNIT SECTION (BU-K1BD33)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

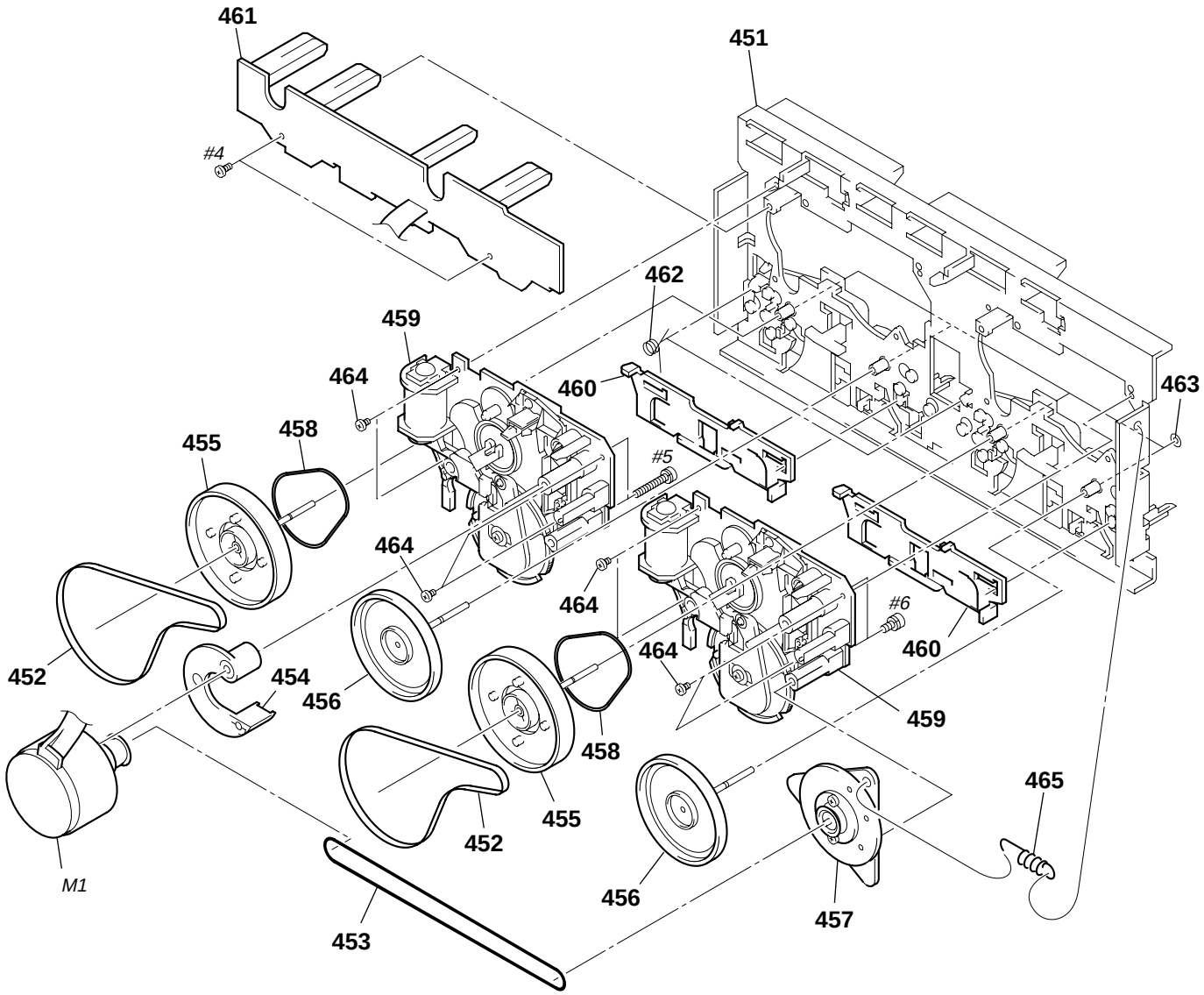
Ref. No.	Part No.	Description	Remark
251	4-996-243-01	SCREW (M2), +PSW	
252	A-4724-330-A	BD BOARD, COPLETE	
⚠253	8-820-026-03	OPTICAL PICK-UP KSM-213BFN/C2NP	
254	3-713-786-51	SCREW +P 2X3	
255	2-626-908-01	SHAFT, SLED	
256	2-627-003-02	GEAR (B) (RP)	
257	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
258	4-216-878-11	COLLAR	
M101	X-2646-110-3	MOTOR ASSY, SPINDLE	
M102	X-2625-769-1	MOTOR ASSY, SLED	

(6) TAPE MECHANISM DECK SECTION-1 (TCM-230AWR2)



Ref. No.	Part No.	Description	Remark
401	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
402	3-036-914-01	RIVET	
403	3-016-574-11	SPRING (HEAD), TENSION	
404	X-3374-156-4	PINCH LEVER (REV) ASSY	
405	X-3374-155-4	PINCH LEVER (FWD) ASSY	
406	3-016-564-01	BASE (PINCH LEVER FWD)	
407	3-016-565-01	BASE (PINCH LEVER REV)	
408	3-026-892-01	SPRING (CASSETTE), LEAF	
* 409	A-2007-731-A	AUDIO BOARD, COMPLETE	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD (PLAYBACK)	
HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (REC/PB/ERASE)	

(7) TAPE MECHANISM DECK SECTION-2 (TCM-230AWR2)



Ref. No.	Part No.	Description	Remark
* 451	X-3374-214-4	CHASSIS ASSY, MAIN	
452	3-016-570-01	BELT (CAPSTAN)	
453	3-016-569-01	BELT (TENSION)	
454	3-017-360-01	BRACKET (MOTOR)	
455	X-3376-497-3	FLYWHEEL (FWD) ASSY	
456	X-3374-235-1	FLYWHEEL (REV) ASSY	
457	X-3374-238-1	PULLEY ASSY, TENSION	
458	3-024-405-01	BELT (FR2)	
459	A-2004-629-A	MECHANICAL BLOCK ASSY	
460	3-016-566-01	SLIDER, REVERSE	
* 461	A-2007-732-A	LEAF SW BOARD, COMPLETE	
462	3-016-575-11	SPRING, TORSION	
463	3-019-208-01	WASHER, STOPPER	
464	3-030-823-01	SCREW (+BVTT) (2X3.5)	
465	3-027-453-01	SPRING (GROUND), TENSION	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	

AUDIO

SECTION 9
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  AUS : Australian model
  CND : Canadian model
  JE : Tourist model
  KR : Korean model
  MY : Malaysia model
  SP : Singapore model
  TH : Thai model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-2007-731-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-104-396-11	ELECT	10uF	20%	16V
C612	1-104-396-11	ELECT	10uF	20%	16V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
		< CONNECTOR >			
CN601	1-563-834-21	SOCKET, CONNECTOR 15P			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC601	8-759-111-44	IC uPC4570C-1			
IC602	8-759-143-54	IC uPC1330HA			
IC611	8-759-111-44	IC uPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		
L601	1-414-193-41	INDUCTOR	220uH		
L602	1-414-193-41	INDUCTOR	220uH		
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q622	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q623	8-729-801-93	TRANSISTOR	2SD1387-34-TP		
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W
R602	1-249-409-11	CARBON	220	5%	1/4W
R608	1-249-409-11	CARBON	220	5%	1/4W
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W

Ref. No.	Part No.	Description			Remark
R612	1-249-409-11	CARBON	220	5%	1/4W
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-241-768-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-241-768-11	RES, ADJ, CARBON 220K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
	A-4724-330-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C104	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C108	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C110	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C114	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT CHIP	100uF	20%	4V
C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C121	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C122	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C123	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C124	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C125	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C126	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C127	1-128-065-11	ELECT CHIP	68uF	20%	10V
C128	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C129	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C130	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C131	1-124-779-00	ELECT CHIP	10uF	20%	16V
C133	1-164-346-11	CERAMIC CHIP	1uF		16V
C140	1-164-346-11	CERAMIC CHIP	1uF		16V
C141	1-164-346-11	CERAMIC CHIP	1uF		16V
C143	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C151	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C154	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C156	1-163-235-11	CERAMIC CHIP	22PF	5%	50V

Ref. No.	Part No.	Description			Remark
C157	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C162	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C163	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C165	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C167	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C168	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C171	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C172	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C181	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C182	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
		< CONNECTOR >			
CN101	1-778-874-11	CONNECTOR, FFC (LIF (NON-ZIF)) 19P			
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			
		< FERRITE BEAD/SHORT >			
FB101	1-500-445-21	FERRITE	0uH		
FB102	1-216-295-00	SHORT	0		
FB103	1-500-445-21	FERRITE	0uH		
FB104	1-216-295-00	SHORT	0		
		< IC >			
IC101	8-752-386-85	IC CXD2587Q			
IC102	8-759-549-28	IC BA5974FP-E2			
IC103	8-752-085-51	IC CXA2568M-T6			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-RT1			
		< RESISTOR >			
R101	1-216-077-91	RES, CHIP	15K	5%	1/10W
R102	1-216-097-00	RES, CHIP	100K	5%	1/10W
R103	1-216-077-91	RES, CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W
R106	1-216-049-11	RES, CHIP	1K	5%	1/10W
R107	1-216-073-00	METAL CHIP	10K	5%	1/10W
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R109	1-216-121-00	RES, CHIP	1M	5%	1/10W
R110	1-216-025-00	RES, CHIP	100	5%	1/10W
R111	1-216-121-00	RES, CHIP	1M	5%	1/10W
R113	1-216-121-00	RES, CHIP	1M	5%	1/10W
R114	1-216-073-00	METAL CHIP	10K	5%	1/10W
R116	1-216-001-00	METAL CHIP	10	5%	1/10W
R117	1-216-049-11	RES, CHIP	1K	5%	1/10W
R119	1-216-041-00	METAL CHIP	470	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-00	RES, CHIP	100K	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R135	1-216-295-00	SHORT	0		
R136	1-216-295-00	SHORT	0		
R137	1-216-295-00	SHORT	0		
R138	1-216-295-00	SHORT	0		
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
R147	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-001-00	METAL CHIP	10	5%	1/10W
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
R171	1-216-078-00	RES, CHIP	16K	5%	1/10W
R172	1-216-073-00	METAL CHIP	10K	5%	1/10W
R173	1-216-077-91	RES, CHIP	15K	5%	1/10W
R181	1-216-078-00	RES, CHIP	16K	5%	1/10W
R182	1-216-073-00	METAL CHIP	10K	5%	1/10W
R183	1-216-077-91	RES, CHIP	15K	5%	1/10W
		< NETWORK RESISTOR >			
RN101	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)			
RN102	1-233-576-11	RES, CHIP NETWORK 100			
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
		< VIBRATOR >			
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
*	1-671-507-21	CLAMP MOTOR BOARD			
		**********			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	30%	16V
C702	1-126-964-11	ELECT	10uF	20%	50V
C711	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< CONNECTOR >			
CN712	1-506-469-11	PIN, CONNECTOR 4P			
		< DIODE >			
D701	8-719-109-69	DIODE MTZJ-T-77-3.6B			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< RESISTOR >			
R701	1-249-411-11	CARBON	330	5%	1/4W
R702	1-249-401-11	CARBON	47	5%	1/4W
**********					
*	1-671-506-21	CONNECTOR BOARD			
		**********			
		< CONNECTOR >			
CN701	1-568-860-11	SOCKET, CONNECTOR 17P			
		< TRANSISTOR >			
Q701	8-729-029-66	TRANSISTOR RT1N141S-TP			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R707	1-249-424-11	CARBON	3.9K	5%	1/4W
R708	1-249-417-11	CARBON	1K	5%	1/4W
R709	1-249-429-11	CARBON	10K	5%	1/4W
**********					
*	1-671-505-21	IN SW BOARD			
		**********			
		< CONNECTOR >			
* CN710	1-568-941-11	PIN, CONNECTOR 3P			
		< SWITCH >			
S703	1-771-218-11	SWITCH, MICRO (MID IN)			
S704	1-771-218-11	SWITCH, MICRO (IN)			
**********					
*	1-671-502-21	INT/COUNT SW BOARD			
		**********			
		< SWITCH >			
S705	1-771-264-11	SWITCH, PUSH (DETECTION) (1KEY) (INIT)			
S706	1-771-264-11	SWITCH, PUSH (DETECTION) (1KEY) (COUNT)			
**********					
*	A-2007-732-A	LEAF SW BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1001	1-107-716-11	ELECT	33uF	20%	10V
		< CONNECTOR >			
CN1001	1-568-860-21	SOCKET, CONNECTOR 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS133T-72			
D1002	8-719-911-19	DIODE 1SS133T-72			
		< CABLE HOLDER >			
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P			
		< PHOTO INTERRUPTER >			
IC1001	8-749-014-38	PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	PHOTO INTERRUPTER SG-264			
		< TRANSISTOR >			
Q1001	8-729-029-56	TRANSISTOR DTA144ESA-TP			
		< RESISTOR >			
R907	1-247-879-11	CARBON	100K	5%	1/4W
R1001	1-249-409-11	CARBON	220	5%	1/4W
R1002	1-249-409-11	CARBON	220	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
R1006	1-247-864-11	CARBON	24K	5%	1/4W
R1007	1-247-856-00	CARBON	11K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R1008	1-249-417-11	CARBON	1K	5%	1/4W
		< VARIABLE RESISTOR >			
RV1001	1-241-785-11	RES, ADJ, CARBON 10K			
RV1002	1-241-785-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1KEY) (DECK A PLAY)			
S1002	1-570-953-11	SWITCH, PUSH (1KEY) (DECK B PLAY)			
S1003	1-771-333-11	SWITCH, LEAF (DECK A HALF)			
S1004	1-771-205-11	SWITCH, LEAF (DECK A 120/70)			
S1005	1-771-205-11	SWITCH, LEAF (DECK A REC)			
S1006	1-771-333-11	SWITCH, LEAF (DECK B HALF)			
S1008	1-771-205-11	SWITCH, LEAF (DECK B 120/70)			
S1009	1-771-205-11	SWITCH, LEAF (DECK B REC)			
**********					
*	1-671-508-21	LOAD MOTOR BOARD			
		**********			
		< CAPACITOR >			
C703	1-162-306-11	CERAMIC	0.01uF	30%	16V
C704	1-126-964-11	ELECT	10uF	20%	50V
C712	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< CONNECTOR >			
CN713	1-506-469-11	PIN, CONNECTOR 4P			
		< DIODE >			
D702	8-719-109-85	DIODE MTZJ-T-77-5.1B			
		< IC >			
IC702	8-759-633-65	IC M54641L			
		< RESISTOR >			
R703	1-249-411-11	CARBON	330	5%	1/4W
R704	1-249-401-11	CARBON	47	5%	1/4W
**********					
	A-4426-608-A	MAIN BOARD, COMPLETE (US, CND, AEP, UK)			
	A-4426-609-A	MAIN BOARD, COMPLETE (MY, SP, KR, AUS, JE)			
	A-4426-945-A	MAIN BOARD, COMPLETE (TH)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 SLIT			
		< CAPACITOR >			
C001	1-164-159-11	CERAMIC	0.1uF		50V
C101	1-104-665-11	ELECT	100uF	20%	10V
C102	1-164-159-11	CERAMIC	0.1uF		50V
C103	1-164-159-11	CERAMIC	0.1uF		50V
C104	1-126-964-11	ELECT	10uF	20%	50V
C105	1-164-159-11	CERAMIC	0.1uF		50V
C108	1-104-665-11	ELECT	100uF	20%	10V
C109	1-164-159-11	CERAMIC	0.1uF		50V
C110	1-104-665-11	ELECT	100uF	20%	10V
C111	1-126-925-11	ELECT	470uF	20%	10V
C112	1-126-925-11	ELECT	470uF	20%	10V
C118	1-216-916-11	ELECT	1000uF	20%	6.3V
C119	1-161-494-00	CERAMIC	0.022uF		25V
C120	1-164-159-11	CERAMIC	0.1uF		50V
C121	1-164-159-11	CERAMIC	0.1uF		50V (US, CND, AEP, UK)
C123	1-162-282-31	CERAMIC	100PF	10%	50V
C124	1-162-282-31	CERAMIC	100PF	10%	50V
C128	1-162-306-11	CERAMIC	0.01uF	30%	16V
C129	1-104-665-11	ELECT	100uF	20%	10V
C301	1-126-960-11	ELECT	1uF	20%	50V
C302	1-137-368-11	FILM	0.0047uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-136-165-00	FILM	0.1uF	5%	50V
C305	1-126-964-11	ELECT	10uF	20%	50V
C306	1-126-960-11	ELECT	1uF	20%	50V
C307	1-126-959-11	ELECT	0.47uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-137-194-81	FILM	0.47uF	5%	50V
C310	1-162-290-31	CERAMIC	470PF	10%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-959-11	ELECT	0.47uF	20%	50V
C313	1-162-294-31	CERAMIC	0.001uF	10%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-104-665-11	ELECT	100uF	20%	10V
C317	1-104-665-11	ELECT	100uF	20%	10V
C333	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C334	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C335	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C336	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C351	1-126-960-11	ELECT	1uF	20%	50V
C352	1-137-368-11	FILM	0.0047uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-126-964-11	ELECT	10uF	20%	50V
C356	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-959-11	ELECT	0.47uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-137-194-81	FILM	0.47uF	5%	50V
C360	1-162-290-31	CERAMIC	470PF	10%	50V
C701	1-126-961-11	ELECT	2.2uF	20%	50V
C751	1-126-961-11	ELECT	2.2uF	20%	50V
C801	1-126-964-11	ELECT	10uF	20%	50V
C802	1-126-964-11	ELECT	10uF	20%	50V
C813	1-104-664-11	ELECT	47uF	20%	25V
C853	1-126-944-11	ELECT	3300uF	20%	25V
C854	1-126-944-11	ELECT	3300uF	20%	25V
C855	1-126-964-11	ELECT	10uF	20%	50V
C861	1-126-768-11	ELECT	2200uF	20%	16V
C862	1-104-665-11	ELECT	100uF	20%	10V
C865	1-104-665-11	ELECT	100uF	20%	10V
C866	1-126-964-11	ELECT	10uF	20%	50V
C867	1-126-934-11	ELECT	220uF	20%	10V
C868	1-126-934-11	ELECT	220uF	20%	10V
C869	1-104-664-11	ELECT	47uF	20%	25V
C870	1-164-159-11	CERAMIC	0.1uF		50V

MAIN

Ref. No.	Part No.	Description			Remark
C871	1-164-159-11	CERAMIC	0.1uF		50V
C872	1-126-925-11	ELECT	470uF	20%	10V
C873	1-104-665-11	ELECT	100uF	20%	10V
C876	1-104-665-11	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN101	1-793-351-41	SOCKET, CONNECTOR 19P			(SYSTEM CONTROL)
CN102	1-784-782-11	CONNECTOR, FFC 21P			
CN105	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P			
CN106	1-785-315-11	PIN, CONNECTOR (STRAIGHT) 3P			
CN111	1-784-780-11	CONNECTOR, FFC 19P			
CN112	1-784-778-11	CONNECTOR, FFC 17P			
* CN301	1-560-666-00	PIN, CONNECTOR 3P			
CNS101	1-784-776-11	CONNECTOR, FFC 15P			
CNS104	1-784-778-11	CONNECTOR, FFC 17P			
		< DIODE >			
D101	8-719-911-19	DIODE 1SS133T-72			
D102	8-719-911-19	DIODE 1SS133T-72			
D103	8-719-911-19	DIODE 1SS133T-72			
D104	8-719-911-19	DIODE 1SS133T-72			
D105	8-719-911-19	DIODE 1SS133T-72			
D106	8-719-024-99	DIODE 11ES2-NTA2B (US, CND, AEP, UK)			
D851	8-719-991-33	DIODE 1SS133T-77			
D852	8-719-991-33	DIODE 1SS133T-77			
D855	8-719-110-08	DIODE MTZJ-T-72-8.2B			
D858	8-719-110-08	DIODE MTZJ-T-72-8.2B			
D901	8-719-024-99	DIODE 11ES2-NTA2B			
D902	8-719-024-99	DIODE 11ES2-NTA2B			
D903	8-719-024-99	DIODE 11ES2-NTA2B			
D904	8-719-024-99	DIODE 11ES2-NTA2B			
		< COIL >			
FB101	1-412-473-21	INDUCTOR	0uH		
		< IC >			
IC101	8-759-597-55	IC M30622MA-A13FP			
IC102	8-759-165-82	IC PST600E-T			
IC107	8-749-923-04	IC TOTX178A (CD DIGITAL OUT OPTICAL)			
IC301	8-759-495-26	IC HA12215F			
IC851	8-759-394-35	IC BA12T			
IC852	8-759-231-53	IC M5F7805L			
IC853	8-759-604-86	IC M5F7807L			
IC855	8-759-231-58	IC M5F7812L			
		< COIL >			
L101	1-410-521-11	INDUCTOR	100uH		
L103	1-410-521-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q101	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q102	8-729-141-83	TRANSISTOR 2SB1375			
Q103	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q104	8-729-141-83	TRANSISTOR 2SB1375			
Q105	8-729-040-20	TRANSISTOR RT1P137L-TP			
Q106	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q107	8-729-900-80	TRANSISTOR BA1A4M-TP			

Ref. No.	Part No.	Description			Remark
Q331	8-729-118-00	TRANSISTOR 2SB1116-TP-LK			
Q332	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q333	8-729-118-00	TRANSISTOR 2SB1116-TP-LK			
Q334	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q335	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q336	8-729-116-59	TRANSISTOR 2SB1068TP			
Q337	8-729-045-21	TRANSISTOR 2SD1513TP-LK			
Q338	8-729-422-57	TRANSISTOR BN1A4M-TP			
Q339	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q340	8-729-116-59	TRANSISTOR 2SB1068TP			
Q341	8-729-045-21	TRANSISTOR 2SD1513TP-LK			
Q342	8-729-422-57	TRANSISTOR BN1A4M-TP			
Q343	8-729-900-80	TRANSISTOR BA1A4M-TP			
Q852	8-729-209-15	TRANSISTOR 2SD2012			
Q855	8-729-141-83	TRANSISTOR 2SB1375			
		< RESISTOR >			
R101	1-249-429-11	CARBON	10K	5%	1/4W
R102	1-249-409-11	CARBON	220	5%	1/4W
R103	1-249-417-11	CARBON	1K	5%	1/4W
R104	1-249-409-11	CARBON	220	5%	1/4W
R105	1-247-807-31	CARBON	100	5%	1/4W
R106	1-247-807-31	CARBON	100	5%	1/4W
R107	1-247-807-31	CARBON	100	5%	1/4W
R108	1-247-807-31	CARBON	100	5%	1/4W
R109	1-247-807-31	CARBON	100	5%	1/4W
R110	1-247-807-31	CARBON	100	5%	1/4W
R111	1-247-807-31	CARBON	100	5%	1/4W
R112	1-247-807-31	CARBON	100	5%	1/4W
R113	1-247-807-31	CARBON	100	5%	1/4W
R114	1-247-807-31	CARBON	100	5%	1/4W
R115	1-247-807-31	CARBON	100	5%	1/4W
R116	1-247-807-31	CARBON	100	5%	1/4W
R117	1-247-807-31	CARBON	100	5%	1/4W
R118	1-247-807-31	CARBON	100	5%	1/4W
R119	1-247-807-31	CARBON	100	5%	1/4W
R120	1-249-429-11	CARBON	10K	5%	1/4W
R121	1-249-429-11	CARBON	10K	5%	1/4W
R122	1-249-429-11	CARBON	10K	5%	1/4W
R123	1-249-429-11	CARBON	10K	5%	1/4W
R124	1-247-807-31	CARBON	100	5%	1/4W
R125	1-247-807-31	CARBON	100	5%	1/4W
R126	1-247-807-31	CARBON	100	5%	1/4W
R127	1-247-807-31	CARBON	100	5%	1/4W
R128	1-247-807-31	CARBON	100	5%	1/4W
R129	1-249-429-11	CARBON	10K	5%	1/4W
R130	1-247-807-31	CARBON	100	5%	1/4W
R131	1-247-807-31	CARBON	100	5%	1/4W
R132	1-247-807-31	CARBON	100	5%	1/4W
R133	1-247-807-31	CARBON	100	5%	1/4W
R134	1-247-807-31	CARBON	100	5%	1/4W
R135	1-249-429-11	CARBON	10K	5%	1/4W
R136	1-249-413-11	CARBON	470	5%	1/4W
R138	1-249-429-11	CARBON	10K	5%	1/4W
R139	1-249-429-11	CARBON	10K	5%	1/4W
R140	1-249-417-11	CARBON	1K	5%	1/4W
R141	1-249-425-11	CARBON	4.7K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R142	1-249-429-11	CARBON	10K	5%	1/4W
R143	1-249-429-11	CARBON	10K	5%	1/4W
R144	1-249-411-11	CARBON	330	5%	1/4W
R145	1-249-429-11	CARBON	10K	5%	1/4W
R146	1-247-807-31	CARBON	100	5%	1/4W
R147	1-249-417-11	CARBON	1K	5%	1/4W
R148	1-249-417-11	CARBON	1K	5%	1/4W
R149	1-249-425-11	CARBON	4.7K	5%	1/4W
R150	1-249-425-11	CARBON	4.7K	5%	1/4W
R151	1-249-429-11	CARBON	10K	5%	1/4W
R152	1-249-429-11	CARBON	10K	5%	1/4W
R153	1-249-429-11	CARBON	10K	5%	1/4W
R154	1-247-807-31	CARBON	100	5%	1/4W
R155	1-249-429-11	CARBON	10K	5%	1/4W
R156	1-249-429-11	CARBON	10K	5%	1/4W
R157	1-249-429-11	CARBON	10K	5%	1/4W
R158	1-249-429-11	CARBON	10K	5%	1/4W
R159	1-249-429-11	CARBON	10K	5%	1/4W
R160	1-249-429-11	CARBON	10K	5%	1/4W
R161	1-247-807-31	CARBON	100	5%	1/4W
R162	1-249-429-11	CARBON	10K	5%	1/4W
R163	1-249-429-11	CARBON	10K	5%	1/4W
R164	1-247-807-31	CARBON	100	5%	1/4W
R165	1-247-807-31	CARBON	100	5%	1/4W
R166	1-247-807-31	CARBON	100	5%	1/4W
R167	1-249-429-11	CARBON	10K	5%	1/4W
R168	1-247-807-31	CARBON	100	5%	1/4W
R169	1-249-429-11	CARBON	10K	5%	1/4W
R171	1-249-437-11	CARBON	47K	5%	1/4W
R301	1-249-435-11	CARBON	33K	5%	1/4W
R302	1-249-421-11	CARBON	2.2K	5%	1/4W
R303	1-247-807-31	CARBON	100	5%	1/4W
R304	1-247-807-31	CARBON	100	5%	1/4W
R305	1-249-421-11	CARBON	2.2K	5%	1/4W
R306	1-249-428-11	CARBON	8.2K	5%	1/4W
R307	1-249-428-11	CARBON	8.2K	5%	1/4W
R308	1-249-425-11	CARBON	4.7K	5%	1/4W
R309	1-249-433-11	CARBON	22K	5%	1/4W
R311	1-247-903-00	CARBON	1M	5%	1/4W
R312	1-247-884-11	CARBON	160K	5%	1/4W
R313	1-249-441-11	CARBON	100K	5%	1/4W
R315	1-249-429-11	CARBON	10K	5%	1/4W
R316	1-249-432-11	CARBON	18K	5%	1/4W
R317	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-247-893-11	CARBON	390K	5%	1/4W
R321	1-249-422-11	CARBON	2.7K	5%	1/4W
R322	1-249-428-11	CARBON	8.2K	5%	1/4W
R324	1-247-876-11	CARBON	75K	5%	1/4W
R325	1-247-876-11	CARBON	75K	5%	1/4W
R326	1-249-417-11	CARBON	1K	5%	1/4W
R327	1-249-437-11	CARBON	47K	5%	1/4W
R328	1-249-425-11	CARBON	4.7K	5%	1/4W
R329	1-249-437-11	CARBON	47K	5%	1/4W
R330	1-249-425-11	CARBON	4.7K	5%	1/4W
R331	1-249-437-11	CARBON	47K	5%	1/4W
R332	1-249-415-11	CARBON	680	5%	1/4W
R333	1-249-421-11	CARBON	2.2K	5%	1/4W
R334	1-249-415-11	CARBON	680	5%	1/4W
R335	1-249-421-11	CARBON	2.2K	5%	1/4W
R336	1-249-437-11	CARBON	47K	5%	1/4W
R337	1-249-417-11	CARBON	1K	5%	1/4W
R338	1-249-411-11	CARBON	330	5%	1/4W
R339	1-249-437-11	CARBON	47K	5%	1/4W
R340	1-249-437-11	CARBON	47K	5%	1/4W
R341	1-249-417-11	CARBON	1K	5%	1/4W
R342	1-249-411-11	CARBON	330	5%	1/4W
R343	1-249-437-11	CARBON	47K	5%	1/4W
R351	1-249-435-11	CARBON	33K	5%	1/4W
R352	1-249-421-11	CARBON	2.2K	5%	1/4W
R353	1-247-807-31	CARBON	100	5%	1/4W
R354	1-247-807-31	CARBON	100	5%	1/4W
R355	1-249-421-11	CARBON	2.2K	5%	1/4W
R356	1-249-428-11	CARBON	8.2K	5%	1/4W
R357	1-249-428-11	CARBON	8.2K	5%	1/4W
R358	1-249-425-11	CARBON	4.7K	5%	1/4W
R359	1-249-435-11	CARBON	33K	5%	1/4W
R701	1-247-807-31	CARBON	100	5%	1/4W
R702	1-249-435-11	CARBON	33K	5%	1/4W
R751	1-247-807-31	CARBON	100	5%	1/4W
R752	1-249-435-11	CARBON	33K	5%	1/4W
R802	1-247-815-91	CARBON	220	5%	1/4W
R855	1-249-417-11	CARBON	1K	5%	1/4W
R859	1-249-417-11	CARBON	1K	5%	1/4W
⚠R861	1-212-853-00	FUSIBLE	6.8	5%	1/4W F
⚠R862	1-212-956-00	FUSIBLE	8.2	5%	1/2W F

< VARIABLE RESISTOR >

RV301	1-238-600-11	RES, ADJ, CARBON 10K
RV351	1-238-600-11	RES, ADJ, CARBON 10K

< VIBRATOR >

X101	1-781-107-21	VIBRATOR, SERAMIC (16MHz)

****

*	1-671-503-21	OUT SW BOARD

****

< CONNECTOR >

* CN709	1-568-943-11	PIN, CONNECTOR 5P
CN715	1-506-481-11	PIN, CONNECTOR 2P

< SWITCH >

S701	1-771-218-11	SWITCH, MICRO (MID OUT)
S702	1-771-218-11	SWITCH, MICRO (LID)
S708	1-771-218-11	SWITCH, MICRO (OUT)

****

	A-4426-223-A	PANEL BOARD, COMPLETE (EXCEPT TH)
	A-4426-942-A	PANEL BOARD, COMPLETE (TH)

****

< CONNECTOR >

CN204	1-784-782-11	CONNECTOR, FFC 21P

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

PANEL

Ref. No.	Part No.	Description	Remark
		< LED >	
D201	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D202	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D203	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D204	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D205	8-719-071-42	LED SEL5723C-TP15 (◁(DECK B))	
D206	8-719-071-42	LED SEL5723C-TP15 (◁(DECK A))	
D207	8-719-071-42	LED SEL5723C-TP15 (▷(DECK B))	
D208	8-719-071-42	LED SEL5723C-TP15 (▷(DECK A))	
D209	8-719-057-29	LED SML78423C-TP15 (DISC 1)	
D210	8-719-057-29	LED SML78423C-TP15 (DISC 4)	
D211	8-719-071-42	LED SEL5723C-TP15 (▷(CD))	
D212	8-719-071-41	LED SELS5923C-TP15 (▯▯(CD))	
D213	8-719-057-29	LED SML78423C-TP15 (DISC 2)	
D214	8-719-057-29	LED SML78423C-TP15 (DISC 5)	
D215	8-719-057-29	LED SML78423C-TP15 (DISC 3)	
D218	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D219	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D220	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D221	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D222	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D223	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D224	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
D225	8-719-076-15	LED SELS6B14C-TP6 (KEY ILLUMINATION)	
		< TRANSISTOR >	
Q201	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q202	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q203	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q204	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q205	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q206	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q207	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q208	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q209	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q210	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q211	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q212	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q213	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q214	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q215	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q216	8-729-900-80	TRANSISTOR BA1A4M-TP	
		< RESISTOR >	
R201	1-249-410-11	CARBON 270 5% 1/4W	
R202	1-249-411-11	CARBON 330 5% 1/4W	
R203	1-249-413-11	CARBON 470 5% 1/4W	
R204	1-249-414-11	CARBON 560 5% 1/4W	
R205	1-249-415-11	CARBON 680 5% 1/4W	
R206	1-249-417-11	CARBON 1K 5% 1/4W	
R207	1-249-418-11	CARBON 1.2K 5% 1/4W	
R208	1-249-420-11	CARBON 1.8K 5% 1/4W	
R209	1-249-422-11	CARBON 2.7K 5% 1/4W	
R210	1-249-403-11	CARBON 68 5% 1/4W	
R211	1-249-403-11	CARBON 68 5% 1/4W	
R212	1-249-407-11	CARBON 150 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R213	1-249-407-11	CARBON 150 5% 1/4W	
R214	1-249-407-11	CARBON 150 5% 1/4W	
R215	1-249-407-11	CARBON 150 5% 1/4W	
R216	1-249-410-11	CARBON 270 5% 1/4W	
R217	1-249-411-11	CARBON 330 5% 1/4W	
R218	1-249-413-11	CARBON 470 5% 1/4W	
R219	1-249-414-11	CARBON 560 5% 1/4W	
R220	1-249-415-11	CARBON 680 5% 1/4W	
R221	1-249-417-11	CARBON 1K 5% 1/4W	
R222	1-249-418-11	CARBON 1.2K 5% 1/4W	
R223	1-249-420-11	CARBON 1.8K 5% 1/4W	
R224	1-249-422-11	CARBON 2.7K 5% 1/4W	
R225	1-247-843-11	CARBON 3.3K 5% 1/4W	
R226	1-249-425-11	CARBON 4.7K 5% 1/4W	
R227	1-249-427-11	CARBON 6.8K 5% 1/4W	
R228	1-249-429-11	CARBON 10K 5% 1/4W	
R229	1-247-807-31	CARBON 100 5% 1/4W	
R230	1-247-807-31	CARBON 100 5% 1/4W	
R231	1-249-407-11	CARBON 150 5% 1/4W	
R232	1-249-407-11	CARBON 150 5% 1/4W	
R233	1-249-407-11	CARBON 150 5% 1/4W	
R234	1-249-407-11	CARBON 150 5% 1/4W	
R235	1-247-807-31	CARBON 100 5% 1/4W	
R236	1-247-807-31	CARBON 100 5% 1/4W	
R237	1-249-407-11	CARBON 150 5% 1/4W	
R238	1-249-407-11	CARBON 150 5% 1/4W	
R239	1-247-807-31	CARBON 100 5% 1/4W	
R240	1-249-407-11	CARBON 150 5% 1/4W	
R248	1-249-403-11	CARBON 68 5% 1/4W	
R249	1-249-403-11	CARBON 68 5% 1/4W	
R250	1-249-403-11	CARBON 68 5% 1/4W	
R251	1-249-403-11	CARBON 68 5% 1/4W	
		< SWITCH >	
S201	1-762-875-21	SWITCH, KEYBOARD (□(DECK B))	
S202	1-762-875-21	SWITCH, KEYBOARD (▷(DECK B))	
S203	1-762-875-21	SWITCH, KEYBOARD (◁(DECK B))	
S204	1-762-875-21	SWITCH, KEYBOARD (□(DECK A))	
S205	1-762-875-21	SWITCH, KEYBOARD (▷(DECK A))	
S206	1-762-875-21	SWITCH, KEYBOARD (◁(DECK A))	
S211	1-762-875-21	SWITCH, KEYBOARD (▷(CD))	
S212	1-762-875-21	SWITCH, KEYBOARD (▯▯(CD))	
S213	1-762-875-21	SWITCH, KEYBOARD (□(CD))	
S214	1-692-221-11	SWITCH, KEY BOARD (DISC 1)	
S215	1-692-221-11	SWITCH, KEY BOARD (DISC 2)	
S216	1-692-221-11	SWITCH, KEY BOARD (DISC 3)	
S217	1-692-221-11	SWITCH, KEY BOARD (DISC 4)	
S218	1-692-221-11	SWITCH, KEY BOARD (DISC 5)	
S219	1-692-221-11	SWITCH, KEY BOARD (⏏(DISC 5))	
S220	1-692-221-11	SWITCH, KEY BOARD (⏏(DISC 4))	
S221	1-692-221-11	SWITCH, KEY BOARD (⏏(DISC 3))	
S222	1-692-221-11	SWITCH, KEY BOARD (⏏(DISC 2))	
S223	1-692-221-11	SWITCH, KEY BOARD (⏏(DISC 1))	

****

Ref. No.	Part No.	Description			Remark
	1-674-773-11	PANEL TC-A BOARD			
		**********			
		< RESISTOR >			
R246	1-247-843-11	CARBON	3.3K	5%	1/4W
R247	1-249-425-11	CARBON	4.7K	5%	1/4W
		< SWITCH >			
S227	1-762-875-21	SWITCH, KEYBOARD (DIRECTION)			
S228	1-762-875-21	SWITCH, KEYBOARD (DOLBY NR)			
**********					
	1-674-772-11	PANEL TC-B BOARD			
		**********			
		< LED >			
D216	8-719-071-41	LED SELS5923C-TP15 (CD SYNC)			
D217	8-719-071-44	LED SELS5223C-TP15 (REC PAUSE/START)			
		< RESISTOR >			
R241	1-249-407-11	CARBON	150	5%	1/4W
R242	1-249-409-11	CARBON	220	5%	1/4W
R243	1-249-427-11	CARBON	6.8K	5%	1/4W
R244	1-249-429-11	CARBON	10K	5%	1/4W
R245	1-249-431-11	CARBON	15K	5%	1/4W
		< SWITCH >			
S224	1-762-875-21	SWITCH, KEYBOARD (HI DUB)			
S225	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
S226	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)			
**********					
*	1-671-504-21	SENSOR BOARD			
		**********			
		< CONNECTOR >			
CN708	1-506-481-11	PIN, CONNECTOR 2P			
		< LED >			
D704	8-719-055-84	LED GL528VS1 (DISC IN DETECT SENSOR)			
		< RESISTOR >			
R711	1-249-415-11	CARBON	680	5%	1/4W
**********					
*	1-671-789-21	SENSOR 2 BOARD			
		**********			
	4-220-274-01	HOLDER (SENSOR) (//C)			
		< PHOTO TRANSISTOR >			
Q703	8-729-926-31	PHOTO TRANSISTOR PT483F1			
**********					
		MISCELLANEOUS			
		**********			
1	1-773-040-11	WIRE (FLAT TYPE) (17 CORE) (12cm)			
2	1-791-433-11	WIRE (FLAT TYPE) (19 CORE)			
5	1-791-075-11	CORD, CONNECTION			

Ref. No.	Part No.	Description	Remark
61	1-773-170-11	WIRE (FLAT TYPE) (21 CORE)	
67	1-773-004-11	WIRE (FLAT TYPE) (15 CORE)	
68	1-773-044-11	WIRE (FLAT TYPE) (17 CORE) (16cm)	
⚠253	8-820-026-03	OPTICAL PICK-UP KSM-213BFN/C2NP	
257	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD (PLAYBACK)	
HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (REC/PB/ERASE)	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	
M101	X-2646-110-3	MOTOR ASSY, SPINDLE	
M102	X-2625-769-1	MOTOR ASSY, SLED	
M701	X-4950-341-1	MOTOR (CLAMP) ASSY	(ELEVATOR UP/DOWN)
M702	X-4950-342-1	MOTOR (LOADING) ASSY	
S707	1-418-045-01	ENCODER, ROTARY	(DISC TRAY ADDRESS DETECT)
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-853-04	SCREW +BVTT 2X6 (S)	
#3	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#4	7-685-851-04	SCREW +BVTT 2X4 (S)	
#5	7-628-254-50	SCREW +PS 2.6X16	
#6	7-628-254-15	SCREW +PS 2.6X6	
#7	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#8	7-685-870-01	SCREW +BVTT 3X5 (S)	
#9	7-685-862-11	SCREW +BVTT 2.6X6 (S)	

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9-928-981-11

Sony Corporation
Home Audio Company

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